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POSTAGE

UK: £2.95 per order. **Overseas:** £5 per order. These prices were effective from 1st May 1999
Hardware delivery in the UK costs between £5 - £10 (call for price) ***Minimum Order £5***

All items are sold subject to our normal terms and conditions and are subject to availability.
*Free Software is only offered on *Software* purchases. (Ask for it when ordering)
Titles have been tested on A1200 based Amiga's, call for compatibility of A500 etc.
AGA = A1200/A4000 required oem = unboxed. A catalogue is sent with all orders.
When ordering please state product code, title and price.
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When paying by cheque add £3 for extra-speedy clearance.
Shape of covershots: ■ = Supplied on CD ▮ = Supplied on DISK, unless stated differently.

NetConnect 3 £49.95



program : netconnect
version : v3
format : cd-rom only
available : early September - call for availability
awards :

Now over a year since the release of the award-winning NetConnect 2, **NetConnect 3** will shortly be available. What is NetConnect? It is the easiest to use and most comprehensive commercial Internet compilation designed to enable any Amiga user, from novice to expert level, to get onto and use the Internet. By using the new Genesis Wizard, a user should be able to connect to the Internet in a matter of minutes. Containing Genesis, Voyager 3, Microdot-II, AmIRC 3, mFTP II, AmTelnet 2, NetInfo 2, AmChat, Contact Manager, WebVision 2 and MetalWeb 3. Ideal for both an Internet dialup and/or local area network connection.

Octopus [dock bar manager]
Octopus is a dock bar manager that allows you to have multiple dock bars on your Workbench. Launch bars from buttons, assign fastlinks to buttons, animated buttons, coloured/pattern buttons, image buttons and much more.

Genesis [tcp/ip]
The Amiga Format award-winning TCP/IP stack. A TCP/IP stack is required to connect you to the Internet. Genesis contains an easy-connection Wizard, multiple provider support, multi-user support, cost logger, 'events' control, status window, controllable dialler, DHCP support etc

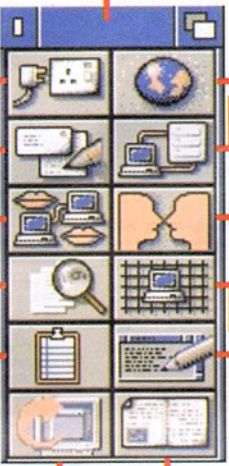
Microdot-II [email/news]
A superb combined email and newsreader within one GUI! Contains all the major features you would expect - MIME attachments, support for POP3/APOP, search function, multiple signatures, multiple user support, Arexx port etc.

AmIRC 3 [irc]
Chat online with friends about topics, join conferences, organise mass meetings. The IRC is one of the most addictive elements of the Internet. AmIRC 3 is the latest version of this client!

NetInfo II [telnet]
NetInfo is a tool for analysing an (Internet) network and the people connected to it - 'finger' your friends to see if they are online, 'traceroute' a connection to monitor the speed.

Contact Manager
Central management of web sites, ftp servers, chat channels, friends/users. Full multi-user support via Genesis. Store information which is accessible from Voyager, MD-2, AmIRC, STFax, IBrowse, YAM, mFTP II and DOpus Mgn.

WebVision 2 [web cam]
WebVision is a viewer program for a fairly recent phenomenon on the World Wide Web - web cameras. Web cameras are recorded images published on the web and updated at regular intervals. They may show everything from a TV channel or somebody's living room to a weather report.



V³ [www]
The newest version of this web browser - new features include Javascript v1.2, Shockwave/Flash, improved SSL for secure ordering, new interface with 'coolbars', icons and preferences. New cache system and much more.

mFTP II [ftp]
mFTP II is a single or dual window based FTP client - download or upload to and from multiple servers, use ADT to locate the newest Aminet uploads or search for a specific file and more.

AmChat [chat]
A direct person to person or person to people chat client. Send messages, send files, chat privately or within a public forum and be notified when a friend is online.

AmTelnet 2 [net services]
Telnet into remote computers - edit files on a computer in Germany from your Amiga, maintain directories for your web pages, check the status of the network, play online games.

MetalWeb 4 [html editor]
MetalWeb is the first WYSIWYG web editor for the Amiga - create web pages in pure DTP style. Add forms, tables, images, text and even Shockwave objects or Javascript scripts. MetalWeb also allows full control over the source.

Documentation

NetConnect v3 Upgrade from v2.x £29.95
NetConnect v3 Upgrade from NetConnect v1.x £32.95
NetConnect v3 Cross-Upgrade from Miami, IBrowse, AWeb - call! £39.95

STFax 4 £34.95



program : stfax
version : v4
format : cd-rom only
available : yes
awards :

STFax 4 is a major update to our popular fax/voice software. New features since STFax 3.8 include 'auto-warn' (warn of an incoming call, generally or specifically or warn of a received message), 'auto-reply' (send automated replies to general or specific faxes), fax filtering (filter faxes based on caller id, remote id), distinctive ring (separate different calls made to two phone numbers, via one phone line), fax forwarding (forward general or specific received faxes to a remote fax number), customised cover pages (templates), caller transfers (transfer a caller to another extension or remote number, via flash-hook transfer), IO message mode filtering, new status window, over 60 professionally recorded voice messages. Enhanced features include a re-written fax on demand system, re-written remote access, re-written mini-BBS, enhanced interface, updated preferences, phonebook and fax viewer. Lots of other minor enhancements included.

What is *STFax*? *STFax* is a commercial fax/voice message program which enables you to use your Amiga as a digital answermachine. Send and receive faxes, create a simple or advanced tree based digital answer system for family members, create a fax on demand service, log numbers via caller-ID, call screen or blacklist phone numbers, set up a mini-BBS, use your modem as a telephone, control other programs etc.

- *Full fax modem support (class 1, 2, 2.0)* - fax from your favourite Amiga software
- *Advanced voice capabilities* - use your Amiga as an advanced (or simple) digital answermachine
- *Support for the Independent Operation mode*
- *Mini-BBS* - set up your own small BBS
- *ScanQuix support* - use ScanQuix to directly scan documents from your scanner into STFax!

STFax v4 Upgrade From STFax v3.x £19.95
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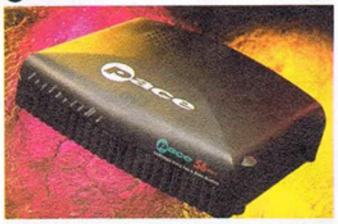
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H'Ware	- £6 for UK next day delivery (serial cards charged at £3 for recorded delivery)

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Choose from three high-quality **branded** modems - the top of the range, award winning PACE v90, the new PACE 'Solo' v90 or the middle of the range Dynalink 'MagicXpress' modem (well built, compact design, same colour as your Amiga). All ship with a five year warranty. The PACE modem's additional features include free lifetime technical support, UK caller ID (only modem available which supports this), a superb speakerphone and volume slider/control. All PACE and Dynalink 'MagicXpress' modems are now v90 shipping ready - the agreed standard for 56K connectivity.

pace v90 Modem



pace 'Solo' v90 Modem



Dynalink v90 External Voice/Fax/Data Modem £59.95
PACE v90 External Voice/Fax/Data Modem £99.95
PACE 'Solo' v90 External Voice/Fax/Data Modem £159.95

Modem Pack Options from.. £74.95

Various money saving packs are available. These are all based on the Dynalink 'MagicXpress' v90 modem. Packs based on PACE v90 or PACE 'Solo' v90 modems available at an additional cost.

Code	Pack Contents	£ Old	£ Sale
PK01	v90 Modem & STFax 4	£ 79.95	£ 74.95
PK02	v90 Modem & NetConnect 3	£ 94.95	£ 84.95
PK03	v90 Modem & NetConnect 3 & STFax 4	£105.95	£ 94.95
PK04	v90 Modem & NetConnect 3, Hypercom 1, STFax 4	£129.95	£119.95
PK05	v90 Modem & NetConnect 3, Hypercom 3+, STFax 4	£149.95	£124.95

ADD £40 for a PACE v90 Modem (instead of the standard Dynalink 'MagicXpress' v90)
ADD £100 for a PACE 'Solo' v90 Modem (instead of the Dynalink 'MagicXpress' v90)

- All packs come with **free**, unlimited Internet connection - various options available

High Speed Serial Cards from.. £39.95

The revamped and recently relaunched ***Hypercom*** cards offer a number of different models for the A1200, A1200-T and zorro Amiga's. The ***Hypercom 1*** is an A1200, clock port based, card offering 1 high speed serial port, the ***Hypercom 3***, another clock port based card for the A1200, offers 1 high speed serial and 1 high speed uni/bi parallel port. The new ***Hypercom 3+*** offers 2 high speed serial ports and 1 high speed uni/bi directional parallel port. The ***Hypercom 4+*** offers 4 high speed serial ports and 2 high speed uni/bi parallel ports. Note that the Hypercom 1/3 cards are now 1D4 motherboard compatible. Software drivers and English documentation supplied. Call for more information.

Model	Machine	Specifications	Price
Hypercom 1	A1200	1 x 460,800bps highspeed buffered serial port	£39.95
Hypercom 3	A1200-T	1 x 460,800bps highspeed buffered serial port, 1 x uni/bi 500k parallel port	£69.95
Hypercom 3+	Zorro-2/3	2 x 460,800bps highspeed buffered serial ports, 1 x uni/bi 500K parallel port	£49.95
Hypercom 4+	Zorro-2/3	4 x 460,800bps highspeed buffered serial ports, 2 x uni/bi 500k parallel ports	£69.95

DOpus Magellan II £44.95



program : dopus magellan II
version : v5.8
format : floppy disks
available : yes
awards : amiga format gold, 95%

Directory Opus Magellan II is a complete Workbench replacement and/or file management based system. Magellan-II offers everything from file management (copy, rename, view, extract etc), dock bar creation (create your own dock bars - to launch programs, commands, scripts), advanced FTP functionality (with asynchronous operation), custom themes (24 bit icons, different backdrops, custom sounds and scripts, improved user and start menus (aka Windows start menus), greater lister functionality (with full drag and drop), custom menus and much more. Magellan-II is indispensable. Once installed and used, you will never want to go back to your 'original' Workbench ever again.

DOpus Companion CD £24.95



program : dopus magellan II companion cd-rom
version : n/a
format : cd-rom only
available : yes
awards : amiga format gold, 95%

The DOpus Companion CD - the ideal companion for the new Opus Magellan II that gives you that much more depth than the manual ever could! **Extensive documentation** - from power DOpus users, worldwide! **Coding** - the ins and outs of the extensive DOpus ARexx port and SDK by the best programmers around. **Filetypes** - We explain how to really get the most from the internal power of Opus. **Themes galore!** Special DOpus Themes can be immediately installed on your Amiga, plus megabytes of freeware and shareware themes. Lots of **icons** for StartMenus, Button banks and Amiga files and folders etc, plus specially designed sets of Toolbar icons from DOpus experts. Indispensable Opus **ARexx utilities and scripts** and many other related tools and accessories!

DOpus Magellan II & Companion CD Bundle £59.95

Voyager v3 £24.95



program : voyager
version : v3.x
format : floppy disks
available : yes
awards :

AMIGA FORMAT Contents

Issue 129 November 1999









REGULARS

SCREEN PLAY

SERIOUS

CREATIVE





AMIGA WORLD NEWS

New Classic

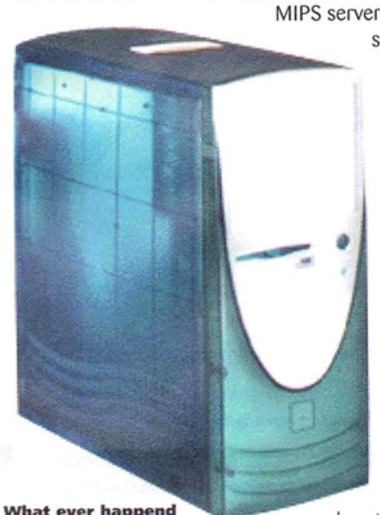
The online Amiga community was stunned on August 16th by the surprise announcement from the previously-unheard-of Iwin Corporation who claim to be producing machines that will run the classic AmigaOS.

Iwin Corporation released the news on their website (http://www.iwin-corp.com/) that the production run for two Amiga-compatible machines would start on the September 6th. The first machine, initially christened the A510 but since renamed the C5300, is a desktop machine; the second, initially called the A1010 but now named the C5400, comes in a tower case in a range of iMac-like boiled sweet colours.

Both machines are to be available either with a 50MHz 68060 or G2 PowerPC processor. Iwin say that these machines do not infringe Amiga patents. Compatibility is to be achieved by a custom hardware and software layer that translates accesses to the Amiga chipset to the substitute graphics, sound and I/O processors on the Iwin motherboard. They say that this emulation layer overcomes the 2MB Chip RAM limit of the AGA chipset: their clones will be able to access 8MB as Chip RAM. Both machines will feature PCI and Zorro III slots, an AGP slot, 3D graphics acceleration, and a sound processor supporting wavetable synthesis and MIDI. Prices for these machines were initially announced to be from $499 for the A510 68K box, although prices are no longer listed on their site.

Iwin also claimed that they were in negotiations to buy the Commodore name from its present owners, the Dutch PC manufacturer Tulip – although nobody at Tulip has been able to verify this. They have since stated that due to "the latest things happening with Amiga Inc. there is no longer a need for the Commodore brand".

> *Why would the CEO of a company which purports to have a staff of over 300 author the corporate website himself and answer his own phone?*



What ever happend to good, old-fashioned beige and cream computer cases?

WHO ARE IWIN?

Iwin are apparently a recently-incorporated hardware and software solutions provider. Their website advertises a range of x86 and MIPS servers and details a range of software products for Windows, Mac, Solaris and even the Amiga. Their flagship product appears to be PowerSE, a miracle operating system claimed to be able to run DOS, Linux, Windows 3.1/95/NT, MacOS, Solaris, Amiga, etc. applications.

Other products listed on the Iwin website include their office suite – *iBase*, *iText* and *iGraph* – which they say they have ported to the Amiga. The site also states that a visual programming environment will be available for the Amiga in October.

Iwin CEO, Martin Steinbach, claims that his company was formed from the merger of Worksoft and Branch Software, based in Germany and Austria respectively. They also list offices in Hong Kong.

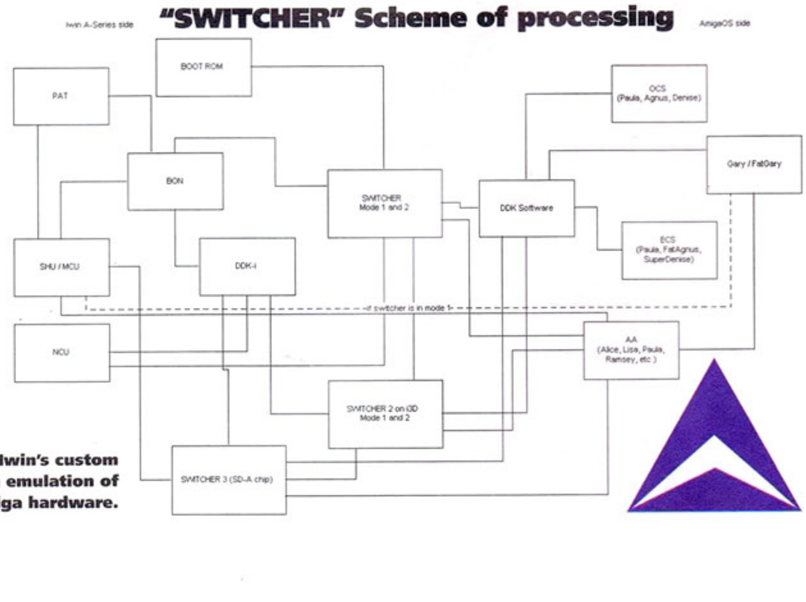
IS THIS FOR REAL?

The Amiga news groups and mailing lists have been working overtime debating the plausibility of Iwin's claims. Iwin have been quite happy to add fuel to the fire by making enigmatic posts to c.s.a.misc themselves – although they have now adopted Amiga's 'silent running' policy.

The problem is that just too few hard facts are known about Iwin and that their claims are too incredible. Why has nobody heard of Iwin, Worksoft or Branch Software previously? If they have roots going back to the middle '80s as they claim and if they have products like PowerSE, why has nobody seen or reviewed it? Iwin are listed as a Solaris solutions provider on Sun's website, but this is a simple matter of submitting a web-based form to Sun; anybody can do it, whether they actually produce the product they claim or not.

There are more inconsistencies. Why would the CEO of a company which purports to have over 300 staff author the corporate website himself and answer his own phone? And when telephoned, why would he not identify himself? Why does a company that produces solutions for serious operating systems, post news on their Amiga products on the front page of their website?

"SWITCHER" Scheme of processing



Switcher is one of Iwin's custom chips which assists in emulation of the Amiga hardware.



Month in view...

Wow! What a crazy month! First we get a company out of nowhere announcing that they'll be producing Amiga clones (still, at least it's got Mick Tinker's arse in gear, we've had a press release stating that the BoXeR will be ready in October...), we've had details of patents and even 68000 clones, and then the shock news that Jim Collas has resigned from Amiga taking his Gateway shares with him, and that groovy Bill "Freeeedom!" McEwen was given the order of the boot. These things aren't necessarily cause for doom and gloom however. Sure, we may get a little less interaction with Amiga now that Bill's gone, and we may not get a snake tent revival speech too often, but even so, I think that most people would agree that the Amiga's the thing, and as long as the guys behind the scenes – like Allan Havemose and Richard Lipes keep driving the Amiga's software and hardware forward, all will be well.

Other news this month has been the continuing battle between the chief Amiga browsers – *Voyager³* and *iBrowse 2*. Although both keep coming out with new pre-releases, there isn't any immediate sign of final version. Still at least they are bringing out pre-releases, right Ben Rothwell/Free Amiga? As it stands right now, *Voyager* is streets ahead of the *iBrowse* effort.

It's gratifying to see so much work taking place, in what is traditionally a slow time of the year (August/September for me), especially the sheer amount of games that are finally reaching fruition. This issue we really didn't have the space to include all we'd like to have done. I'd personally just rather see some more serious products that weren't A1200 accelerators...

Amigas?



Iwin's website. Is it real or an elaborate hoax?

Then there's their Amiga-compatible machines themselves. The pricing for these computers itself stretches credulity. How can anybody produce a low-volume, custom-designed motherboard based around the over-priced 68060 processor, stick it in a box with a hard disk and a monitor and sell it for $499? – less than you would pay for a 68060 accelerator for an existing Amiga. And why is the PowerPC version more expensive? The technical details of their architecture so far released have also been less than convincing: hastily sketched diagrams with little labelling and mock-up X Window-style screenshots.

WHAT NOW?

If Iwin the company is a fabrication and their claims merely a hoax, the big question is why would anybody bother? The elaborateness of such a scheme is boggling: incorporating a company, obtaining a domain name, creating the website, registering fake products with other companies. The facts that they have released about their company and products have just enough truth to make the whole plausible; but they have ensured that actual verification of any of these facts is difficult.

Iwin say that their Amiga clones will be available at the end of September. By the next issue of *Amiga Format*, there should be physical evidence to support their claims – if they are for real, that is. Watch this space.

Changes at Amiga

More shocks at Amiga this week (August 31st, 1999) with the news that Bill McEwen was being sacked, swiftly followed by the revelation that Jim Collas was resigning. Although the incidents happened so closely as to seem as though they were related, in actual fact they were completely separate incidents in the turbulent history of the Amiga. Bill McEwen represented Amiga at many trade shows and was always busy on their behalf evangelising the machine to the users and those that didn't know it equally. He pioneered the Amiga Advisory Council (AAC), a body which must surely be moribund now. However, in an increasingly money-oriented business, Bill did not bring in any revenue, something which is often frowned upon by bean-counters, and was told to vacate his desk. Speculation that Bill's push was caused in part by the geographical disparity of Amiga's headquarters and its PR section (Bill was in Washington State, while Amiga was based in southern California) seems to have been unfounded, with money being the overriding concern. However, Bill is not down or out yet, and keen Amiga users should watch for his name appearing again in this story soon.

The resignation of Jim Collas, erstwhile president of Amiga, is a slightly different story. Although he only captained Amiga for a relatively short space of time, since February this year, many Amiga "old gods" like Dave Haynie and Carl Sassenrath have nothing but praise for him, notwithstanding the direction he wanted to take the new machine in. It appears that the reason he resigned was because Gateway weren't happy with the money he was spending on the new Amiga, again, a business not bringing in any cash is an expensive one, and his plans for a worldwide advertising campaign and promotion for the new Amiga were met with stern faces at Gateway headquarters. In his disgust at Gateway's attitude, apparently, Jim left and even sold all his shares in Gateway as a form of protest – one that will net him some $8.3 million. However, he has been incommunicado for the rest of this week and therefore unavailable for comment.





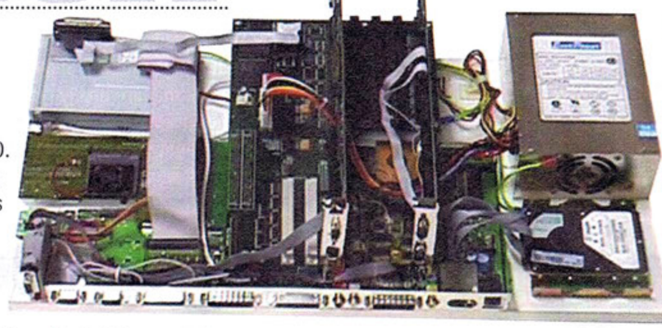
Money issues inside Gateway caused Bill to be sacked and Jim to resign.

Whatever happens with the two of them, it won't stop the Amiga machine from grinding on, although it may set it back a tad. Expect little news to come from Amiga in the next few weeks, although they are still planning a presence at the annual Köln show and also at Comdex in Las Vegas in November. We'll give you more details as we have them...

Continued overleaf ➡

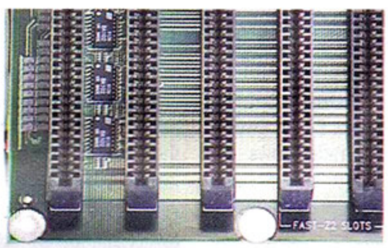
Apollo Z4 preview

Eyetech and Power Computing are vying to build systems around the latest A1200 expansion, the Z4 backplane from German hardware developers Apollo, priced just under £130. Eyetech were the first to deliver a working set-up but their tower cases need changes to make them compatible with the new card, which is why the preview system is a mass of circuit boards. A couple of days before we went to press, Power shipped us a Z4 board built into their tower case. We shall test and compare both set-ups next issue.

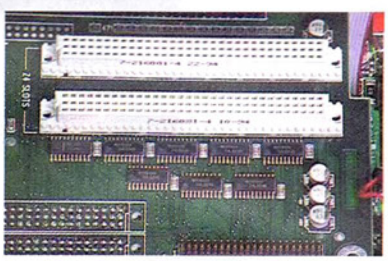


Eyetech's massively expanded A1200 test system.

Past A1200 expansions have suffered from poor compatibility with accelerator cards and Commodore's 32-bit Zorro III. The Z4 approach avoids Zorro III in favour of simpler schemes based on souped-up Zorro II and A1200 interfaces. A bank of jumpers regulate CPU timings, making Z4 compatible with all the accelerators Eyetech and Power have tried. These include PPC, Blizzard 060 and 030 Mark IV, all Apollos, Vipers, Typhoons and GVP's 1230/50.

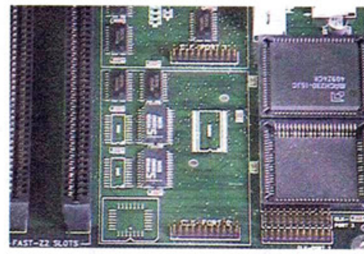


Two of the Zorrro 2 slots can run at double speed.



Two new sockets for the promised Z4 cards.

There are five Zorro II slots, for up to 8MB of Amiga-standard 16-bit expansion space. You also get two new Z4 connectors, which resemble Apple NuBus and MGT SAM expansion slots. Two of the five 100-pin slots can optionally run at Z4 rates, twice as fast as Zorro II. This breaks the Zorro specification but existing boards like Buddha can apparently be modified fairly easily to suit. Z4 is slower and less versatile than Zorro III, but should allow much cheaper cards: a 4MB graphics card, based on GVP's Spectrum design, and an ATAPI IDE controller are said to be under development now.



Z4 offers four clock and two accelerated Zorro 2 ports, plus lots of glue logic

The backplane uses standard PC-AT P8 and P9 power input sockets to supply the complete Amiga. A bypass power output socket can feed supplementary supplies to PowerUp PPC cards and the promised G4 cards from phase 5. The Z4 board also boasts four clock ports, including one directly compatible with A1200 devices and drivers. It supports internal scan doublers or Picasso IV graphics, given an appropriate video adapter for AGA signals.

Power Computing and Eyetech are assembling special deals for complete cased Z4 systems, ready for your current Amiga drives and boards. We shall have detailed reviews next issue.

ATARI 2600 CLASSIX

Epic's latest CD compilation focuses on the Amiga's grandparent, the Atari 2600 console. Amiga users get version 0.83ß of the V2600 emulator with icons, but not the portable emulator Stella, now on Aminet. The CD is less than two per cent full, as 507 games occupy just 3MB and there are no extras, aside from emulator releases for PPC as well as non-Amiga systems. 2600 Classix requires a 32-bit Amiga with fast memory and a CD drive. It costs £9.99 from Epic Marketing, who can be reached on 0500 131486, or at http://www.epicmarketing.ltd.net

100 issues ago

AF29 December 1991

AMIGA FORMAT



We look at what was going on in the Amiga market 100 issues of *AF* ago…

■ **Cover feature:** Inside the new Amiga. Commodore launched the A500+ onto an unsuspecting public this month and *AF* opened up a machine to look inside, checked out Workbench 2.04 (without a single mention of ARexx) and supplied the Commodore list of the games and utilities that worked with the new machine.

■ **On the disks:** Two disks now (hence the price rise). One disk contained *OctaMED*, the other a demo of the *Blues Brothers* game by Titus, a demo of *Home Accounts 2* from Digita and an example "RealThings" animbrush of a shark.

■ **News:** In addition to the news about the new A500+, there were price drops for the Harlequin graphics card, GVP announce IV24 and the G-Force 040, Archimedes game *Top Banana* gets an Amiga conversion, new video packs are announvced for the A2000 and A3000, Trojan launch their terrible light gun and Gold Disk bring out major upgrades for most of their software range.

■ **Prices:** Going back to the Harlequin, the top of the range model (with 4MB RAM, as I remember) cost just £1,395, plus VAT at 17.5 per cent, and *TV Paint*, one of the only applications that you could run on it, was a mere £800+VAT.

■ **Games reviewed included:** *Battle Isle* (Ubi Soft) 90%, *MiG-29* (Domark) 89%, *Suspicious Cargo* (Gremlin) 80%, *Robocod* (Millennium) 91%, *First Samurai* (Image Works) 91%, *Heimdall* (Core) 88%, *Last Ninja III* (System 3) 81%, *Knights of the Sky* (Microprose) 88%.

■ **Serious products reviewed:** *Techno Amiga* (CatusAB) 90%, *Draw 4D Pro* (ADSPEC) 82%, *Scenery Animator* (Natural Graphics) 91%, *KCS 3.5 Level II* (Dr. T) 92%, *Audition 4* (Sunrize) 93%. There was also a round-up of "word publishers" and floppy drives.

■ **Notes:** There was a two-page Q+A about the differences an A500+ would make written by Pat McDonald, and it looked like the two disk setup was here to stay.

■ **Pages:** 260 ■ **Cost:** £3.95

Virtual 68000s!

Former Commodore chip consultant Dr Ed Hepler has resurfaced with some typically clever developments that could make their mark on classic and next generation Amigas.

Colleagues reckon Hepler developed some of the best hardware never to emerge from Commodore, including the 'triple-A' Andrea graphics chip, and the RISC-based Hombre system. He formerly designed processors for Bell Labs and the Spaceflight division of General Electric Corp.

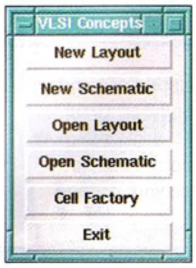
A posting on the Usenet newsgroup comp.sys.68k confirms that his new company VLSI Concepts has broken Motorola's monopoly over their 68K processor architecture, designing an optimised processor core which runs 68000 programs at speeds much greater than the original chip. In the PC market, Intel have been surpassed by chip cloners like AMD and Cyrix, who make faster, cheaper chips that can run the same code.

This is the first time anyone has publicly cracked the problem of making processors binary-compatible with the 68K range, and benefits from the legal precedent of Intel clones. VLSI Concepts also sell a core compatible with the 6800, Motorola's original 8-bit chip, and one that revitalises code for 8051 microcontrollers – the new internal architecture eliminates microcode and so needs around a twelth as many clock cycles as Intel's original.

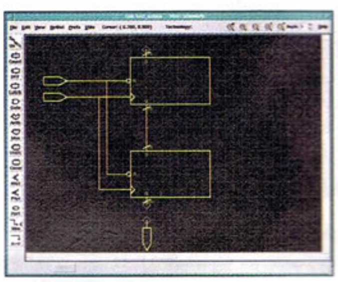
Hepler's V68000 is supplied under licence as a VHDL file – a layout and set of equations in generic 'Virtual Hardware Description Language' that can be programmed into semi-custom chips, alongside other logic. The core uses the equivalent of 15,500 logic gates, plus static RAM for the register file in a gate-array library. It has been tested at speeds up to 40MHz. This is little threat to premium Motorola chips but attractive to firms making 68K-based embedded systems and information terminals – areas where Amigas have already been successful, despite the need for hardware adaption.

The opportunity for new Amigas comes because Hepler also sells software for custom chip design, modelling and testing. This is currently running on Linux and should be readily portable to the AmigaNG. Serious developers can find further details on http://www.vlsi-concepts.com.

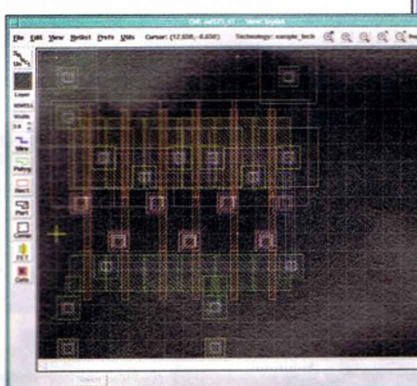
VLSI CONCEPTS
VLSI & System Architecture
VLSI & ASIC Design
VLSI CAD



VLSI Concepts come from a highly-respected Commodore consultant.



Virtual hardware design underway in Linux, from the VLSI Concepts website



Advanced Computer Aided Design coming soon to an Amiga near you...

New Amiga patents

Various Amiga news websites have recently revealed that new patents have been filed under the Amiga name.

The first of the these patents was filed on July 9th, 1997 and describes an addressing scheme by which a common bus can be shared between two or more clusters of CPUs. Each CPU in a cluster is given a sequential ID number; the next unused ID number is used to denote a "phantom" processor within that cluster. CPUs in the first cluster can address the second cluster via this phantom and vice-versa. A round-robin bus arbitrator assigns ownership of the bus to each CPU in the first cluster in turn until reaching the phantom CPU; ownership then passes to a CPU in the second cluster.

The remaining 17 patents are all connected with digital and interactive television, especially user interface technology. For example, the patent named "Mutably transparent displays" describes a system for reducing the clutter displayed on a computer or TV screen. Applications whose interfaces are not currently in use are made transparent, only becoming opaque when that interface is required. Other patents, such as "Associating websites to television programs" and "Multichannel conflict resolver for convergence system", are more obviously TV-related.

The man behind these patents is Ted Wugofski, chief engineer at Over the Moon Productions, a subsidiary of Gateway. Gateway have long been interested in the convergence market, the melding of TV and the computer, as their earlier Destination PC-TV project reveals. It is probable that Gateway filed these patents under the Amiga name since this is the direction in which they wished to steer the Amiga. The original appointment of Jeff Schindler, previously in charge of the Destination PC-TV, as their first Amiga CEO further supports this.

Ted Wugofski is also a member of Advanced Television Systems Committee (ATSC), a specialist group developing software standards for broadcast digital television. Wugofski has proposed a Broadcast HTML specification as a language for delivering broadcast applications to digital television receivers.

These patents can be viewed on the web by accessing a patent server, such as IBM's at http://www.patents.ibm.com/.

Vital Horgan



Why do you use your Amiga? If you answered "because it's the best computer system", you need to see a doctor – not only because you're talking out loud to a magazine, but also because that's a load of rubbish.

No, I haven't been captured and brainwashed by the Microsoft Secret Police (not that they exist of course, if Gates' lawyers are reading), that's just the way it is. I reckon there are two main reasons why people still use Amigas. One is that they favour a particular application that's not available for any other platform. Fair enough, nothing wrong with that. The other reason is that they like being part of a club.

Using an Amiga these days is like driving a pre-1968 Split Screen Volkswagen Camper Van, only an Amiga doesn't look as good and you can't cook your breakfast in it.

How so? We'll need to be honest for this one to work. Our Amigas are slow and overheating is a common problem. They've fallen apart and been rebuilt countless times. They galvanise opinion from on-lookers, either inciting ridicule from the young boy racers at the traffic lights, or dewy eyed nostalgia from the older crowd. When it comes to modern buzzwords they're a barren wasteland, aside from a few shabby DIY retro-fitted features. Most importantly, as soon as you're behind the wheel of a Split Camper, you're part of a cosy community of like-minded souls, all prepared to put up with knackered components and spare parts that cost the earth in exchange for owning something a bit different – all prepared to lend a hand to others in the same boat at the drop of a hat.

And my point? Err... oh yes, it's basically that it's us lot that makes using an Amiga the experience it is. Don't kid yourself that our Amigas are infinitely superior to Windows boxes, because they're not. Oh, and don't give Jim Collas a hard time for using a PC laptop to make a presentation at WOA, he's just using the best tool for the job.

Tony Horgan

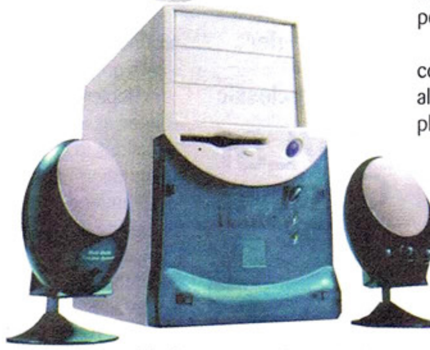
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BoXeR news (again)

Although this magazine has run several stories in the past with regard to the near-mythical BoXeR, we couldn't resist running with this news from Blittersoft:

"BoXeR has been redesigned to incorporate many new features. We believe these changes addresses many issues that will deliver a true 100% backwards compatible machine that provides the power needed for the future.

"We have addressed the problems of high cost peripherals by integrating active PCI slots to enable the support of standard PCI cards such as state of the art Graphics, Ethernet, Sound Cards, Modems and more. The optional Zorro III adaptor board is available if you wish to use your existing Amiga cards.



More iMac-inspired colourfulness invades the BoXeR space...

"The all-new leading-edge design uses a single chip chip-set with AGA feature and register compatibility, but has completely new logic to achieve the highest performance and most flexible design.

"Our Processor connector supports low cost PowerPC upgrades. This expansion allows the on-board 680x0 to remain in place or be removed when using appropriate emulation software for a PPC only systems. Both G3 and G4 accelerators are planned.

"The BoXeR FlashROM allows software and hardware upgrades for future system enhancements."

Blittersoft expect to have motherboards ready for the end of October, and full machines by the middle of November using the case shown which is available in various colours and plain cream if you don't like the iMac look. You can call Blittersoft for more details on 01908 610170.

SPECIFICATION

■ 100% Amiga compatible. ■ Motorola 68040 or 68060 at 25-75MHz supported in a single processor socket. ■ Integrated chip chip-set, AGA compatible but with performance enhancements. ■ Most peripherals support high speed DMA transfers, increasing throughput while reducing processor overhead. ■ No CHIP RAM limits. ■ 2 x 64-bit DIMM sockets (low cost) for combined use as FAST/CHIP. ■ Dual IDE Hard disk interface, supports fast IDE modes, including UDMA. ■ Flash ROM 2MB, 32-bit wide. Provides kickstart ROM's and resident modules. ■ High Density floppy disk drive interface, operating as DF0: ■ CD-ROM audio input connector and mixer. ■ Real Time Clock. ■ 4 x Active PCI slots ■ Amiga Video slot ■ Expansion connector to support 2 x Zorro 3 slots ■ Connector for full 64-bit PowerPC expansion card.

CONNECTORS

■ Printer port (buffered with DMA transfers). ■ RGB video. ■ PS/2 Keyboard. ■ PS/2 Mouse. ■ Serial port (buffered with DMA transfers). ■ Amiga Joystick port. ■ Amiga Mouse port. ■ Stereo audio. ■ IDE 40-pin (Dual) header ■ Floppy drive DF0:/DF1: header.

DUAL ANALOGUE SHOCK FOR AMIGA!

Blittersoft are releasing a combination cable/software that allows PlayStation peripherals to be used on your Amiga. Complete with developer pack to allow programmers to utilise these peripherals, the software includes CD32 gamepad emulation. The adaptor will support a standard PlayStation controller (or multitap) and a memory card and will include software to emulate a CD32 controller using lowlevel.library, with support for analogue and wheel control.

The adaptor will plug into the Amiga's parallel port and will cost £24.95. More details are available from Blittersoft on 01908 610170.



The World's most versatile gaming controller comes to the Amiga.

phase 5 cancelling G3 boards

With an email detailing this shocking news, phase 5 had everyone's blood pressure up. However, it's actually good news since the German acclerator manufacturer was only cancelling their new G3 accelerator for the A1200 and A3/4000 because they had decided instead to move production to the new PowerPC chip – the G4.

In addition to the G4's other benefits (speed being a large factor), the new boards will ship with QSSL's QNX Neutrino operating system to allow for immediate use of a PowerPC-native environment straight out of the box. They also hope to be able to bring out a new 3D graphics card (possibly based on the Voodoo chipset) at the same time as their new accelerators since the CyberVisionPPC and BVisionPPC will not be compatible with the new board. Since the board doesn't have a 680x0 processor of any description, 68K programs will have to run under emulation using the G4, but phase 5 assure us that this will still be faster than most people's current Amigas anyway.

As a special deal with phase 5, they have agreed to give a substantial discount to *Amiga Format* readers who wish to pre-order with them. The only trick is that our magazine comes out on the 23rd of September and the closing date for *AF* pre-orders is 1st October, so no hanging about! Simply fill in the form and send it off to phase 5 in Germany.

I'd like:

	RRP	Pre-order price
☐ Blizzard G4 350MHz	649 Euros	579 Euros
☐ Blizzard G4 400MHz	799 Euros	679 Euros
☐ CyberStorm G4 400MHz	799 Euros	679 Euros
☐ Cybervision NG	180 Euros	165 Euros

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Postcode: ....
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Send to:
phase 5 Digital Products, In der Au 27, 61440 Oberursel, Germany

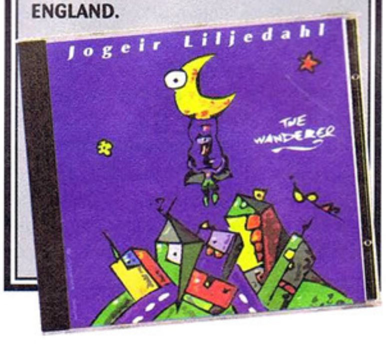
Top Tunes

Jogeir Liljedahl, perhaps the most famous Amiga MOD musician ever, has published his first music CD.

For years, Jogeir wanted to publish a CD with his music, but he lacked the money. Now, Bjorn Lynne, an old friend and Amiga musician, has offered to release Jogeir's CD on his "LynneMusic Productions" label.

Jogeir's first CD, titled "The Wanderer", costs £12 plus £1 p&p. To buy online, visit http://www.lynnemusic.com.

To purchase by mail-order, make cheque payable to BJORN LYNNE and send to Bjorn Lynne, Longlands House, Wakefield Road, Ossett WF5 9JS ENGLAND.




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See anything you fancy?

While new Amigas can be rarer than hen's teeth to find these days, a secondhand bargain will leave you far more flush, if you know what you're looking for. Ben Vost and Richard Drummond give some guidance.



Buying an A3000



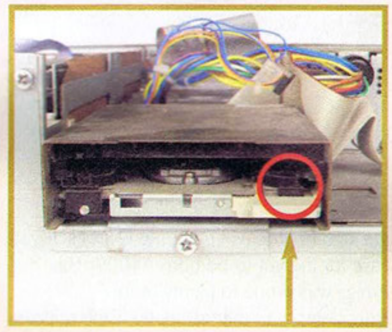
Ask any longstanding Amiga owner – they'll probably say that the A3000 is the finest Amiga Commodore ever made.

Starting with the king of Amigas, and really the oldest machine you should look at seriously unless you're either a nostalgia buff, or you have a bunch of obsolete hardware waiting for a home, the Amiga 3000 is a fine machine. It has built-in SCSI (not very fast, but faster than motherboard IDE), a built-in flicker fixer, Zorro III and VGA output so you can plug it straight into a VGA-type monitor. Plus, it can take the same kind of accelerators as the A4000.

The machine will probably come with *Kickstart 2.04*, which will need replacing but make sure you get ROMs purpose-built for the A3000, and it has no 5.25" drive bays, making most expansion a purely external proposition – probably a good thing considering how awkward the A3000 is to get into.

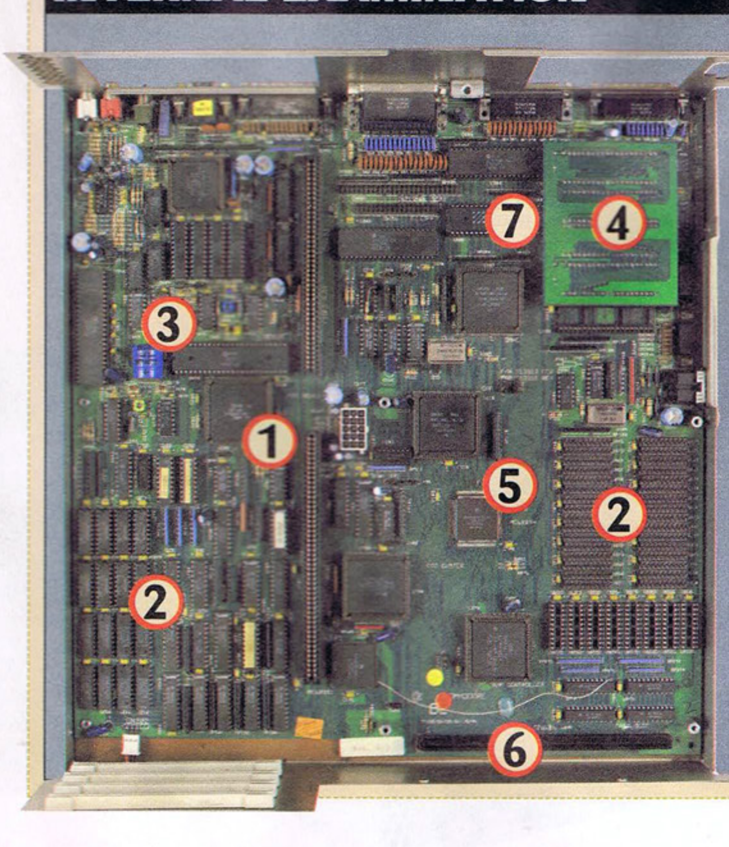
The A3000 comes with either a 16MHz 68030 and 16MHz 68881, or a 25MHz 030/882 combination. It doesn't really matter which one you acquire if you can get an accelerator card to fit in the machine – a big recommendation since you'll be hard-pushed to find the ZIPPs needed to upgrade the motherboard memory. Try to ensure you get a manual too because some accelerators require the motherboard timings whilst others have their own, so you'll need to set jumpers accordingly.

Overall this machine is a good candidate for modern Amiga use, especially when kitted out with a graphics card and 060 or PowerPC accelerator. They will often come equipped with Zorro cards and, because it's only an ECS machine, you can often find them as cheaply as A1200s and cheaper than A4000s, although the A3000 was a much better design.



Some A3000s have high density drives. Check to see if there are pins in the drive above the eject button.

INTERNAL EXAMINATION



Things to look out for:

1. Buster revision – usually 7, which is better than 9, but easy to replace with 11.
2. Motherboard RAM – the bank on the left is Chip (it should have all the sockets filled) and on the right Fast.
3. Battery – check it isn't leaking onto the motherboard.
4. Kickstart chips – this machine has a "tower" with Kickstart 3.1 ROMs on it. Not all A3000s will require this.
5. Processor – check this chip to see what speed it's clocked at.
6. Fast slot – this is where you'll plug an accelerator card into the machine.
7. SCSI controller – The A3000's SCSI controller is no great shakes, but you can get a slightly improved version from RamJam Consultants on (0118) 946 5940.



Continued overleaf ➡

Buying an A4000



The ugly, but functional, A4000.

The A4000 was originally going to look something like the A2000 did – a big bulky case, but beautifully designed with a kind of "cresting wave" and black as the midnight sky. However, penny pinchers at Commodore discovered that they had a bunch of cases left over from their 386 and 486 PC desktops and so decided to modifying them to work as a case for the yet-to-be-born A4000. This Amiga was prone to plenty more ignominies, and the fact that it came out as well as it did, considering the cost reductions and shortcuts taken, comes as something of a pleasant surprise.

A HARD LIFE

As a secondhand machine, your A4000 will have had a pretty hard life and don't expect lots of add-ons unless you're buying from an existing Amiga owner. Most of the A4000s in circulation seem to have come from companies that used them for point of information displays or the like. You may get a network or serial card, but don't expect a fully-laden CyberStorm or PicassoIV. Most likely you'll also get a 68030-based machine. These are clocked at 25MHz and don't have an FPU as standard, although sockets are provided on the processor card. The same advice applies here for processor cards as for the A3000 – motherboard RAM access is slow (especially on a machine faster than an A4000/030), and you'd be far better served by going down the CyberStorm route.

All A4000s should come with high density floppy drives, but these are available in two sizes. The vast majority are more than half the 3.5" drive bay's height, while the remaining few are sized more as you'd expect. The more common larger drives preclude the easy installation of an internal Zip drive or similar in the remaining 3.5" bay.

Probably the single most important thing you need to check out before you pay for a secondhand A4000 is the revision

> **The single most important thing you need to check out before you pay for a secondhand A4000 is the type of Buster chip on the motherboard**

and type of the Buster chip on the motherboard. Fortunately the A4000 is far easier to dismantle than the A3000, so it shouldn't take you long. There are two screws in the back of the machine that you need to undo and then the lid slips back and up.

If there are any Zorro cards in the machine, these need to be removed, but then you should be able to see the motherboard RAM and the chips on the left-hand side of the motherboard (as seen from the front of the computer). The Buster chip is easily recognisable. It has **Super Buster** written on it and will have the following part number – 390537-xx where the xx is a number, either 09 or 11, but beware if it isn't in a socket, and don't buy the machine (unless you're really keen) if it's a rev 9 Buster. Why? The rev 9 Buster has problems with having more than one Zorro III card in your machine, and since it's a Zorro III-based machine you'll be buying, you don't want that.

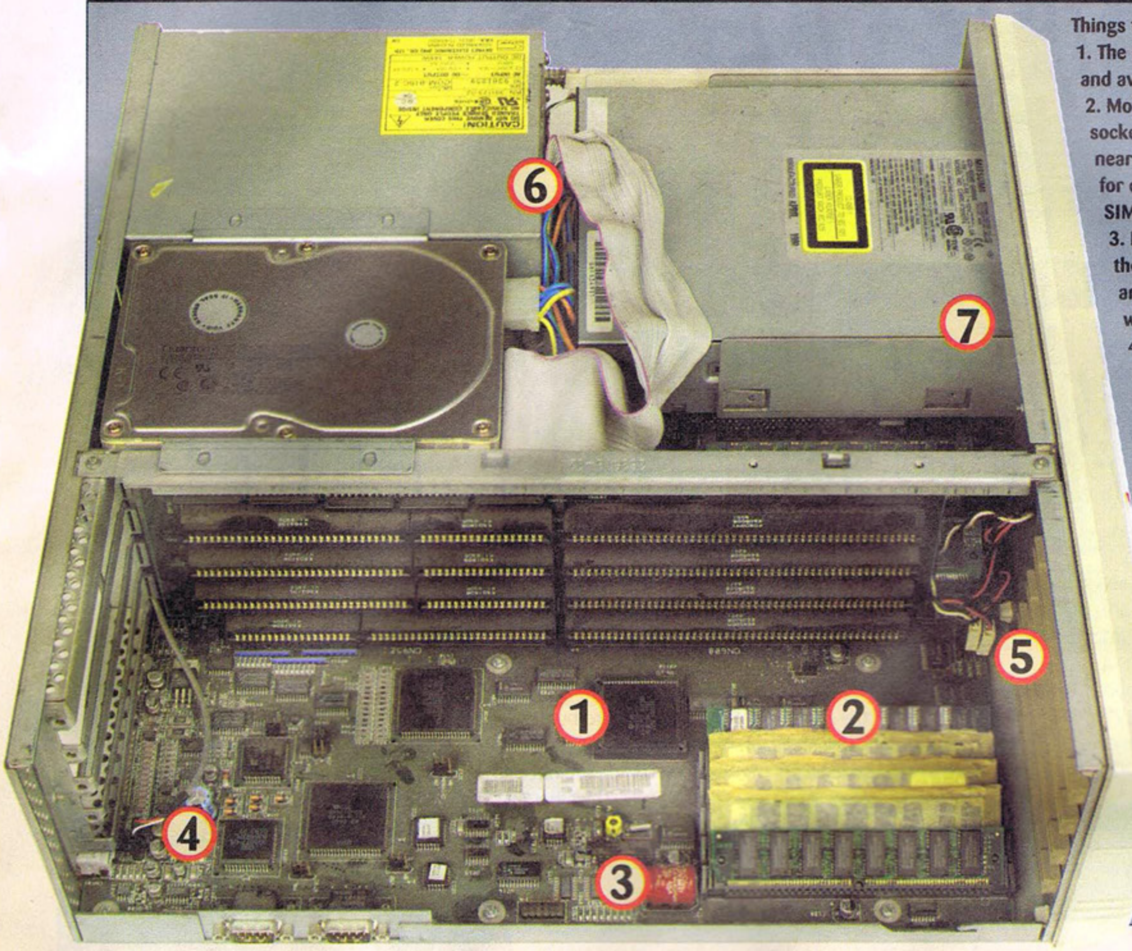
The other thing to watch out for is battery leakage corroding the motherboard. The battery is located on the far left of the motherboard in front of the mouse ports. You can't miss it since it's likely to be a big lump of red or blue.

The A4000 has one 5.25" drive bay which can be used for a CD-ROM drive, but watch out for long CD-ROM drives as the

While the A4000 doesn't have a hardware flicker fixer, it does have a monitor power throughput, which is nice...



INTERNAL EXAMINATION



Things to look out for in an A4000:

1. The Buster chip – make sure it's socketed and avoid rev 9 machines if you can.
2. Motherboard RAM – there are five SIMM sockets here. Four are for fast RAM (the four nearest the side wall of the case), and one is for chip RAM. Make sure this one is a 2MB SIMM. They aren't easy to find now.
3. Look around the battery for corrosion of the motherboard. If the machine works anyway, it won't be too bad, but it will get worse.
4. This lead plugs into the CD-ROM drive at one end and the CD audio mixer plug on the motherboard at this end.
5. The A4000 has a lock that can be used to lock the mouse buttons and the keyboard. If you don't get the key, make sure you unplug the lock from the motherboard here.
6. As you can see there's not much space here. On some A4000s you might find that the 5.25" device power plugs are slimline jobs, but most will be the standard fat ones that you can see plugged into the hard drive.
7. (Visible in the main picture of the A4000) The floppy drive – if you can get an A4000 with a slimline floppy drive (not like the one in the main picture) then yell "yippee!"

amount of space between the front of an A4000 and its power supply is minimal, and the power supply plug that needs to fit in the back of the drive can often stick into the fan. It's not unusual to see A4000s with the CD-ROM unscrewed and sticking out because it won't sit far enough back.

SOUND AS A POUND

If you do get a CD-ROM drive in place you'll be pleased to know that at the back of the motherboard, right in front of the audio sockets, there's a set of three pins which are to connect the audio out at the back of your CD-ROM drive to the Amiga's audio output allowing you to have one set of speakers plugged in and have CD audio mixed with your Amiga sound – ideal for games. However, there is no control of the level of the sound coming from the CD, and it tends to be considerably quieter than that of your Amiga, so my advice would be to ensure that all your system sounds aren't at full volume. That way, the levels will be far better matched.

If you're lucky enough to get an A4000 with a half-height floppy drive hang onto it! Putting an additional device, such as an internal Zip drive, into the remaining 3.5" bay is far better than simply having an unusable space there, although it won't be as easy to fit as you have to remove the front panel to place it securely.

Of course, the ideal thing to do is to fit your secondhand A4000 into a tower case, since it's likely to look pretty manky, especially if it's been used in industry. This will also make fitting additional devices easier. If you do decide to stick with the A4000's not-very-aesthetically-pleasing desktop case, you'll be glad to know that it's probably the nicest Amiga to shove bits into, notwithstanding the 3.5" drive bay.

As far as monitors go, the A4000 has the same limitations as an A1200, but it's much easier to fit with a graphics card. One with a scan doubler or flicker fixer pass-through is best since you'll be able to use a decent multiscan monitor for everything.



TOP TIPS FOR BUYING

If you're going to buy an Amiga secondhand it is essential that you check various things before you part with your hard-earned cash:

1. Unless you're buying for spare parts make sure the machine boots (or at least gets to the boot screen) before you part with the money. If necessary bring a monitor with you to check;
2. The overall condition of the Amiga in question isn't of prime importance, however look out for cracked cases which might indicate a dropped machine;
3. Check online sources and ads in mags for current pricing. Don't get rooked on a secondhand Amiga;
4. Ask for manuals. If the machine comes with add-on cards, it would also be a good idea to get manuals for those and for the disks of drivers if necessary and available;
5. Try to buy the machine in person. If this is not possible and you're buying at a distance, make sure the machine arrives by a trackable method;
6. If you're getting software with the machine make sure you get disks, manuals and boxes for it, otherwise you'll be pirating the software.

Continued overleaf ➡

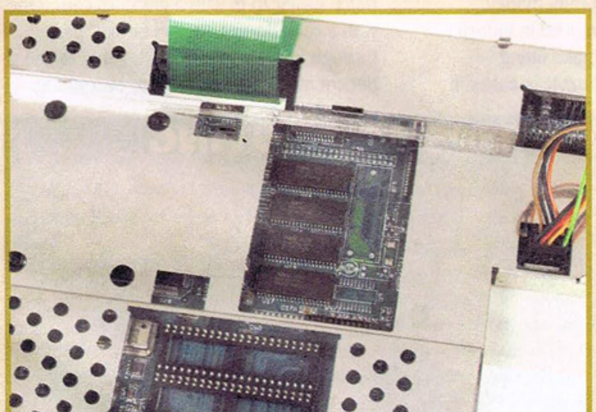
Buying an A1200



Last but not least we have the A1200, the most common type of Amiga still in current use and the lowest-end machine you should consider buying.

BEFORE BUYING

The most important question to ask yourself before purchasing a second-hand A1200 is what you intend to do with the machine. This is because the Amiga 1200 was not intended to be very expandable. Ingenious Amiga hardware developers have performed miracles with the A1200 over the last few years, producing add-ons to connect to every nook and cranny of its motherboard – but the more gizmos you cram in, the less stable the machine becomes.



This section of the A1200's electrical shielding can be removed to reveal the clock port header underneath. Hopefully.

Probably the most common Amiga in use today, the A1200 is better-suited to the beginner rather than the power user.

Unlike its predecessor, the A500, the 1200 has no Zorro bus; its expansion slot, located underneath the machine in the trapdoor compartment, lacks some key Zorro signals. Thus there is no provision for fitting Zorro cards to the machine as standard and some of the most interesting pieces of kit you can bung in an Amiga come as Zorro cards. You can buy graft-on Zorro busses for the A1200, but these tend to be expensive (especially in the case of Zorro III) and, in any case, do not always provide 100 per cent compatibility. The motto here is, if you need expandability then you will save yourself time, money and aggravation by buying a big-box Amiga in the first place.

The A1200 was not intended to be very expandable so you need to decide what you intend to do with the machine before you buy it



CAVEAT EMPTOR

If, after careful deliberation, you decide that the 1200 is really the machine for you, then there are some points to be aware of when examining your prospective purchase.

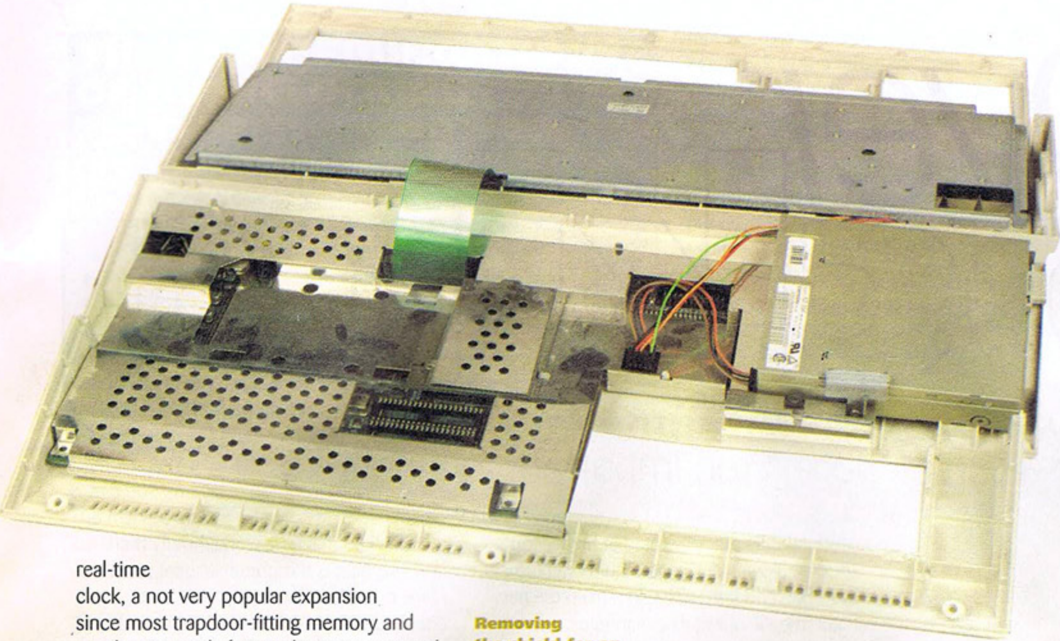
Firstly, the Amiga 1200 motherboard was produced in several subtly different motherboard designs. The main reason for these different revisions, besides minor evolutionary changes, was so that Commodore could build them with different types of RAM chips – depending on price fluctuations and availability. However, not all motherboard revisions are born equal. Some models exhibit flaws when used in conjunction with modern expansions such as fast accelerator cards.

Revisions 1D.4 and 2B in particular are prone to timing conflicts and lock-ups with some hardware. Correcting the defects of these boards is straightforward but requires a steady soldering iron. Amiga dealers such as Power and Eyetech will do the job for about £30. However, you should note that you may find so-called problematic boards which operate perfectly well for you and others which are still unstable when the prescribed remedy has been performed.

WATCH THE CLOCK

The other thing to look out for is the RAM expansion/clock port headers. On the original prototype boards, which only had 1MB of Chip RAM, these consisted of two 40-way DIL headers – one called P9A, located above the RAM chips and one called P9B, above the Kickstart ROMs.

P9A was intended for attaching an extra meg of chip RAM but on later revision boards, which already possessed the full 2MB, these pins are missing. P9B was intended for adding a battery-backed



Removing the shield for an A1200 can be a painful job. Remove the floppy drive first and then bend out all the lugs with a pair of needle-nosed pliers.

real-time clock, a not very popular expansion since most trapdoor-fitting memory and accelerator cards featured one anyway and so offered better value for money.

Nowadays, however, you can connect loads of gadgets here, including 16-bit sound cards and faster I/O ports. Most motherboards either contain the full set of pins on the P9B header or just the 22 pins on the right-hand side (pins 19-40). Beware of those boards which contain pins only on the left-hand side or no pins at all. Neither are of any use.

FINAL THOUGHTS

Don't buy an A1200 without looking at the motherboard. Sounds obvious, doesn't it? After all, you wouldn't buy a car without looking under the bonnet. If the owner complains that the warranty seal is still intact, then point out that warranty repairs on Amigas went down the pan with Commodore and Escom. If they still won't budge, try elsewhere: it's a buyer's market.

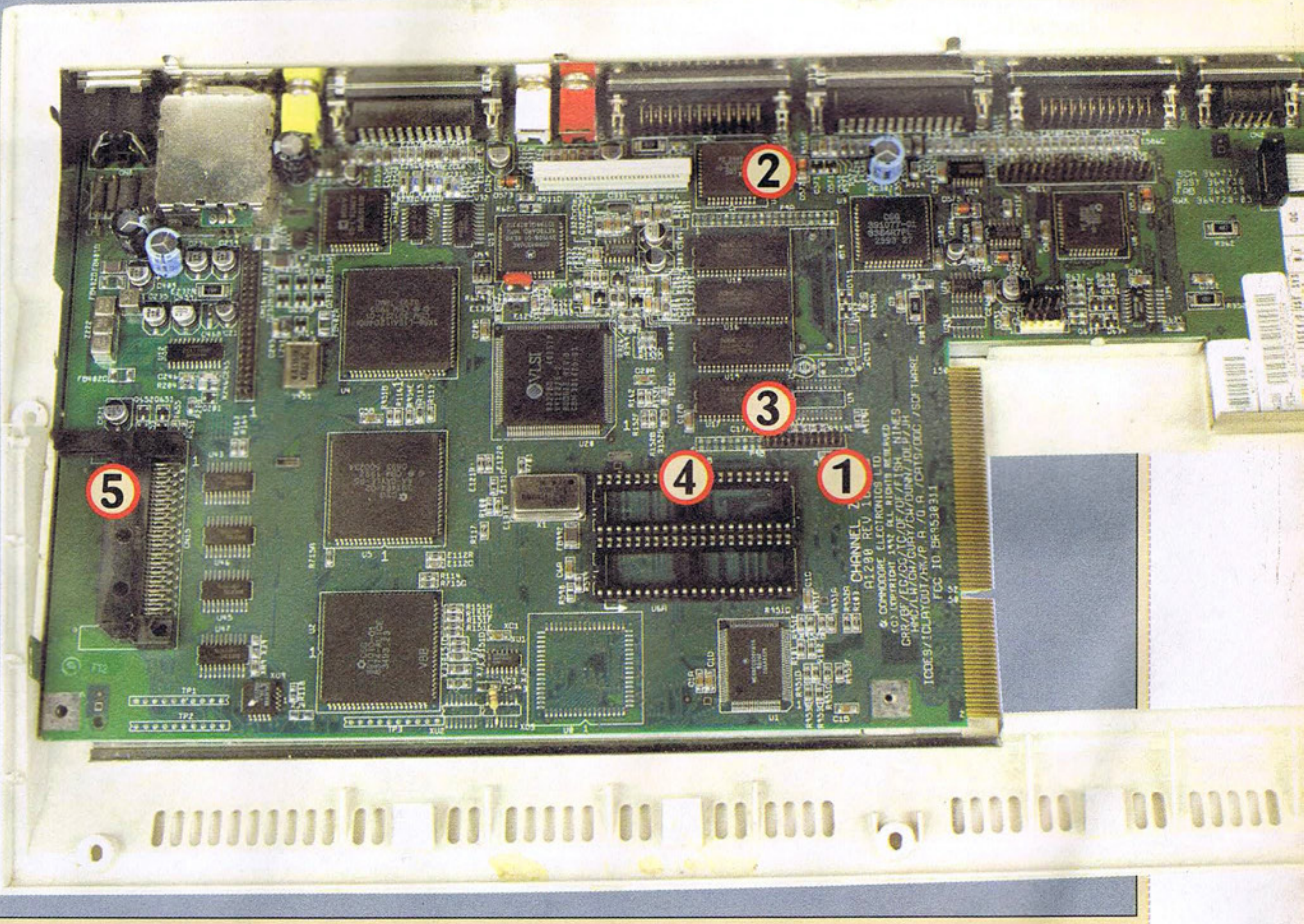
A typical 1200's existence will have been a lot rougher than any of its big-box cousins as constant plugging and unplugging of peripherals causes wear and tear. The surface-mount technology used in the A1200 does mean that it's a lot more resilient than it's older brother, the A500 but as many of them will have spent their existence in the living room for use with a TV, or perhaps even lived under the coffee table, you should avoid machines that have obviously suffered a hard time.



Never hand over your money sight unseen, unless the machine is a real bargain.

INTERNAL EXAMINATION

1. Pay careful attention to the motherboard revision: it is written in white letters parallel to the expansion slot. 1D.4 and 2B boards may need to be fixed for use with some hardware add-ons.
2. The unused memory expansion header.
3. The clock port header. A handy place to connect all manner of gadgets and gizmos. Make sure that at least pins 19 to 41 are present (as on this machine).
4. The Kickstart ROMs. Try to go for machines which already have 3.1 ROMs installed. It will save you the expense of upgrading. ROMs with bent legs show careless handling. Don't buy a machine with no ROMs, such as this one.
5. The PCMCIA slot. An under-used but potentially useful place for add-ons, especially the Squirrel SCSI interface and PCMCIA ethernet cards. Look closely at the pins to ensure none are broken or missing. On our example machine the bottom guide is broken – a sure sign of abuse.



Over Clocking

Is it safe to overdrive your processor? Simon Goodwin delves definitively into a can of worms too important to ignore

Overclocking promises something for nothing: a faster machine for the price of a clock crystal – a few quid – and an infinitesimally increased electricity bill. But there's no such thing as a free lunch. Overclocking requires care and involves risk.

The whole idea became popular because chip manufacturers artificially grade their production, charging more for parts rated at higher speeds. Early on, these fast parts were expensively cherry-picked from a production batch. Nowadays they're arbitrarily chosen; the label and package differ, but the chip inside is identical, produced to the same specification, baked in the same furnace. Manufacturers will rarely have more than three parts bins: really fast, works within spec and failure.

Chips are built in batches, and manufacturers will periodically 'scale' the circuitry to increase performance and yield (the proportion of usable chips) and squeeze more chips onto each silicon wafer. Smaller chips are faster as well as cheaper, so later production is officially rated at higher top speeds. Slower-designated chips will remain available, and if they're taken from the new batch they'll inherit its advantages.

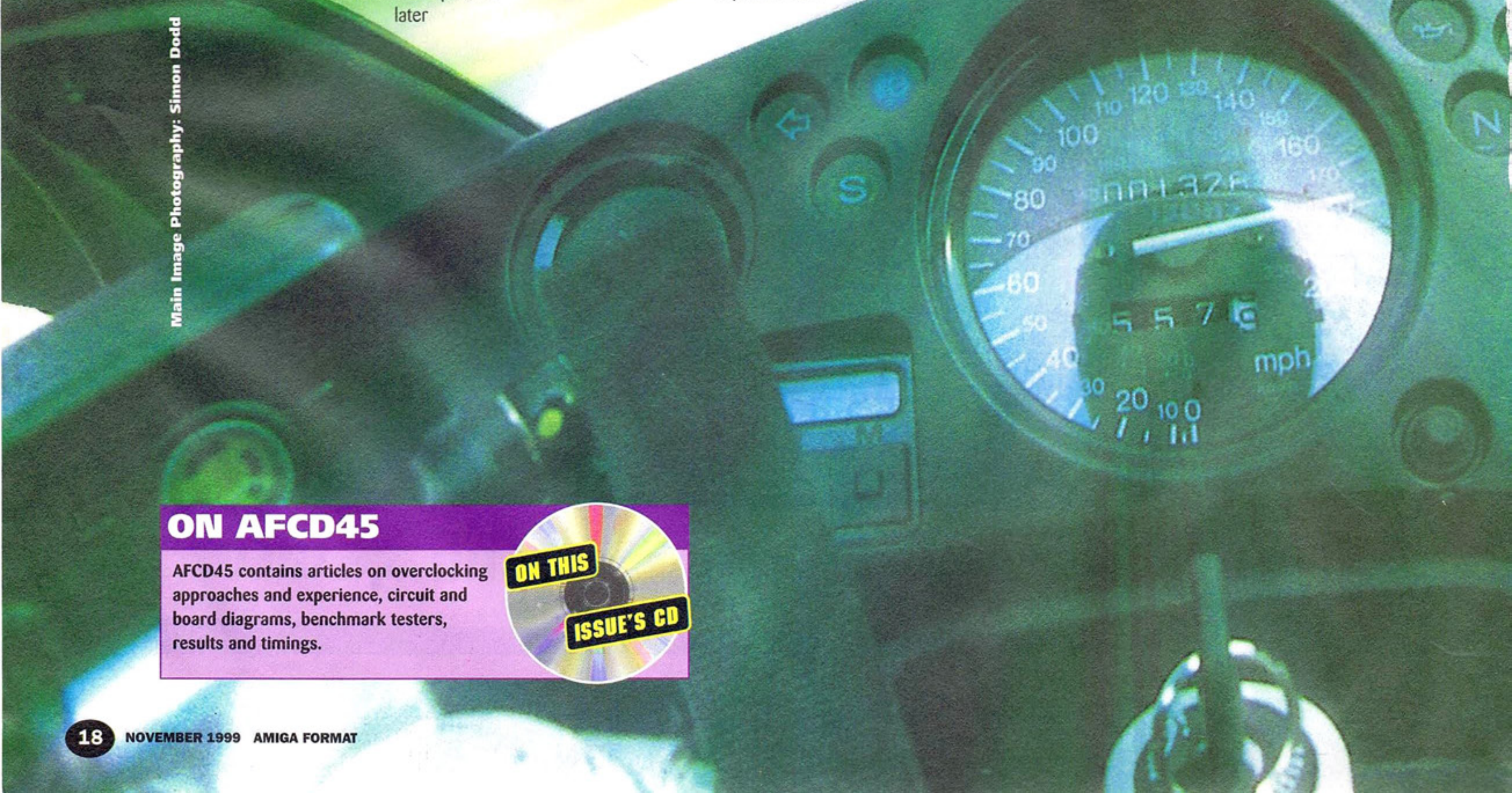
Overclocking is a gamble fashionable in the MHz-obsessed PC market. You'd have to be clumsy or unlucky to do any permanent damage by trying it, but it only takes the loss of one computer in your life to ruin your whole day, if not longer!

> **You'd have to be clumsy or unlucky to do permanent damage with overclocking but the loss of a computer can ruin your whole day**

The most likely outcome of excessive overclocking is that your system becomes unreliable, or fails to start but reverting to the old clock speed should restore normality. If signals don't arrive in time, a modern processor is more likely to simply stop than to explode. If an overclocked machine works briefly then crashes, heat is the prime suspect, as hot chips operate more slowly. This characteristic averts the risk of 'thermal runaway' which was common on the old PMOS (Positive Metal Oxide Semiconductor) chips from the 1970s. These did the reverse, getting hotter and faster until they literally burnt out.

CLOCK CYCLES

Production processors are synchronised by a regular stream of 'clock' pulses. The rate of these determines the speed of processing. Clock pulses are derived by exciting a sliver of quartz; modern products use four-pin hybrid components which combine the crystal, oscillator and amplifier. These packages are 'crystal oscillators', the overclocker's stock-in-trade. They're labelled in MHz, millions of cycles per second.



Main Image Photography: Simon Dodd

ON AFCD45

AFCD45 contains articles on overclocking approaches and experience, circuit and board diagrams, benchmark testers, results and timings.

ON THIS ISSUE'S CD

THE EIGHT FOUNDATIONS OF OVERCLOCKING

1. The closer a chip is to the top of its range, the less you can push it.
2. The later it was made, the faster it should go.
3. More damage is done by ham-fisted part-swaps than high clock rates.
4. Any overclocking makes a computer less reliable.
5. If the processor is still under warranty, leave it alone.
6. Overclocked systems require more power and cooling.
7. It is far easier to swap a crystal oscillator if it's socketed.
8. You must be willing to lose everything if it goes wrong.

If the crystal oscillator in your board is socketed, experimentation is easy, but you must always plug them in the same way round. One corner is sharp, usually marked with a dot, and the other three are round. The marked corner must always be in the same place – most oscillators burn out within seconds in the opposite orientation.

PRACTICE FIRST

Manufacturers often solder oscillators down to discourage experiments. If you're determined to try to remove them, practice first on redundant PC motherboards, replacing the oscillators there, usually in silver boxes, with sockets. The ideal socket is a 14-pin 0.3" wide DIL with the second, third, fifth and sixth pairs of pins removed. The remaining holes accommodate square or rectangular oscillators. Well-designed boards have space for both.

Farnell, Maplin and many electronics suppliers sell crystal oscillators for around £3 and some *AF* advertisers will probably sell them to you, especially if you haven't bought an accelerator from them. However, you'll get more choice at a radio rally, where traders may stock over a hundred, from 1 to 100MHz. I've amassed loads of odd values cheaply by dismantling scrap PC video cards.

The original Amiga ran an 8MHz chip at a cautious video-synchronised 7.15MHz, but overclocking has since been institutionalised. DKB Cobras run a 20MHz 68030 at 28MHz, MacroSystem US Warp Engine and Apollo 1240s push the stock 25MHz 040 to 28MHz. DCE run a 25MHz chip at 40MHz in their Blizzard 1240, some Apollo 66MHz accelerators used 50MHz rated chips, and phase 5 boost some Blizzard 603Es from 200 to 210MHz (3.5 x 60MHz). So why not you?

MEMORY SPEED

Accelerator designers have facilities to check and adjust their circuits to suit a new speed. Often this involves relaxing the specification of the RAM interface, to give more leeway for a faster processor. Fast memories and processors operate in sychronisation, with memory accessed once every few pulses of the main clock.

Nominally a 68000 accesses external RAM every four cycles and a 68020 every three but, since the 68030, processors can read fast 'bursts' of consecutive data, the first word takes three or four cycles, but the next three need only two each. Slow memory and fast processors are reconciled by adding 'wait states', with the processor idling periodically, waiting for the memory to catch up.

Thus a typical 40MHz 68030 might access a SIMM every three cycles, while a 50MHz chip needs only one wait state. The processor speed is 25 per cent more, but the RAM access speed is 93 per cent (from 5/4 x 3/4). On-chip caches reduce this effect by storing recently-accessed data.

RAM limitations become obvious if you boost the clock of a processor without a cache. Most 68000 operations are limited by the memory transfer rate so you can graft a 14MHz chip into an A2000 with a little logic, but almost half its time will be spent waiting for memory.

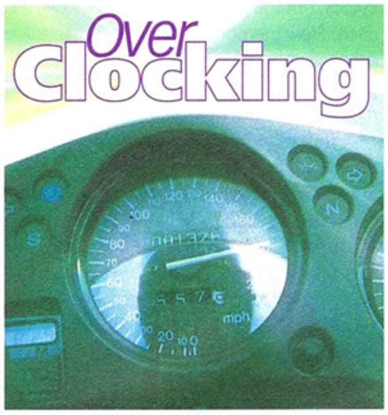
The instructions that benefit most from the clock boost are multiplication and division, which spend many cycles churning through operands internally once they've been fetched. However, the benefit of faster processing is marginal without faster RAM. Processor clock speed is only one part of the equation. Some boards derive interface timings from the CPU clock and may report CPU access exceptions if pushed too fast. Here RAM type and speed becomes critical as some RAM may vanish at high speeds!

SYNCHRONISATION

16-bit Amigas are synchronous designs. The processor and custom chips run in

Continued overleaf ➡





fixed time slots, taking turns to access motherboard resources. The basic A1200 is also synchronous, with the 68020 clocked twice as fast as the chip set. Unless you add fast memory, it spends half the time idle.

Zorro 3 Amigas and 32-bit accelerators are asynchronous, making them more complex and a lot more flexible. The processor runs as fast as it can, favouring ports, caches and local memory on the accelerator, while a 'state machine' monitors the motherboard, waiting for the chance to pass messages back and forth. The asynchronous part can go faster, but communication with the motherboard is generally slower than if everything was permanently locked in sync.

The speed of an asynchronous accelerator can be largely independent of the rest of the system. You can increase the accelerator clock rate, and the motherboard interface will still work, despite the increased gap between the two. However, all the parts on the accelerator must be capable of the new speed. This includes local memory, on-board peripherals and the glue custom logic that ties it all together.

FPUS

The original 68881 FPU was rated at speeds from 16 to 25MHz. The 68882 is an optimised and scaled design, capable of speeds from 20 to 5MHz. All known 68882s can run at 50MHz, but not much faster. I've happily run a 20MHz part at 50MHz for months, in an A4000/030, by moving the jumpers and adding a crystal oscillator module, socketed for easy swapping. GVP Combo boards normally run their CPU and FPU at the same rate, but have space for a separate FPU oscillator.

A more ambitious and literal hack doubles the speed of the 25MHz 68882 in the A3000; some old A3000s had 68881s, less amenable to overclocking. The A3000 FPU is in the middle of the motherboard, near the front. The FPUCLK30 trace from pin 11, second from the right on the far side of the 68882, must be cut, ideally on the underside of the motherboard. It resurfaces a centimetre to the right of where it went down.

Next, connect the far side of the 22Ohm resistor R120 to pin 11, feeding the full 50MHz to the FPU. Aminet experimenters soldered a wire under the motherboard, from the point where the wire from R120 goes through the board, to the point where the FPUCLK wire from pin 11 went through the motherboard the first time. This well-tested hack gave one happy user 32 per cent faster Lightwave renders, but it does require some mechanical skill, not least in the initial dismantling of the A3000.

TESTING, TESTING

If you try to run a processor too fast, it probably won't work at all. Test it briefly and turn it off promptly if it doesn't work. Monitor chip temperatures carefully on overclocked systems – be cautious. A ten per cent boost is fairly safe, unless you're at the official speed limit already but might not merit the hassle. The benefit may only seem perceptible to a stopwatch, until you step down again. Clock speed doubling is unlikely to work except on initially slow-rated 68000s and 68882s.

Monitor chip temperatures carefully on overclocked systems. A 10 per cent boost is fairly safe unless you're already at the official speed limit

If results are erratic you may need to cool the glue chip and replace the RAM with faster parts. Overclocking also affects the memory and glue interface logic, generally an irreplaceable custom chip, programmed by the accelerator firm. Test SIMMs one at a time (or two on PPCs) as their speed limits vary. The nominal rating in nanoseconds is only a vague guide.

Some GVP, Apollo and phase 5 boards can be configured for fast or slow RAM. The slow RAM setting suits overclocked machines, as it stops the relatively fast processor going too fast for the SIMM.

Accelerators with on-board SCSI often derive controller timings from the same oscillator. If you overclock the processor significantly, the SCSI interface may be driven out of specification and stop working reliably. Separately-clocked Zorro SCSI controllers still work when you speed up the processor, thanks to their glue logic, but aren't as efficient as on-board controllers.

Recent phase 5 accelerators have two clock crystals, allowing separate SCSI and processor clock rates. This requires extra synchronisation logic; when two chips share a single clock you can assume they march in step, but not otherwise.

BURN-OUT

Some people swear by overclocking, but it's best left to the experts. Would you rather a system that was 95 per cent reliable and 25 per cent faster, to one that's 99 per cent reliable at the rated speed? Overclocking also invalidates your warranty.

A CPU architect told us: "If you don't care if your computer only works for two to five years instead of 10 or 20, go right ahead. I still have my A2000 running after more than 10 years – I probably wouldn't have that if I had overclocked it."

Table 1 - Power PC speed & heat dissipation

MHz	133	166	180	200	225	233	300	350
603e	5.3	–	–	5.0	–	3.5	6.0	–
604e	–	13.3	14.3	15.7	17.4	18.0	–	8.0

Table 2 - Motorola processor speeds & heat dissipation

MHz	16	20	25	33	40	50	66
68030	1.2	1.3	1.4	1.6	1.8	2.6	N/A
68040	N/A	4.0	8.6	10.0	11.2	N/A	N/A
68060	N/A	N/A	N/A	N/A	3.1	3.9	4.9

Note: Based on worst-case figures from Motorola manuals.

PROCESSOR MARKINGS

Motorola CPU chips are branded with arcane alphanumeric codes like MC68EC040RC33. The first letter is generally X or M. XC denotes an early batch and MC a later one, officially 'certified', with obscure bug-fixes. An A or B on the end suggests more fundamental reworking, and is a good sign of a later batch.

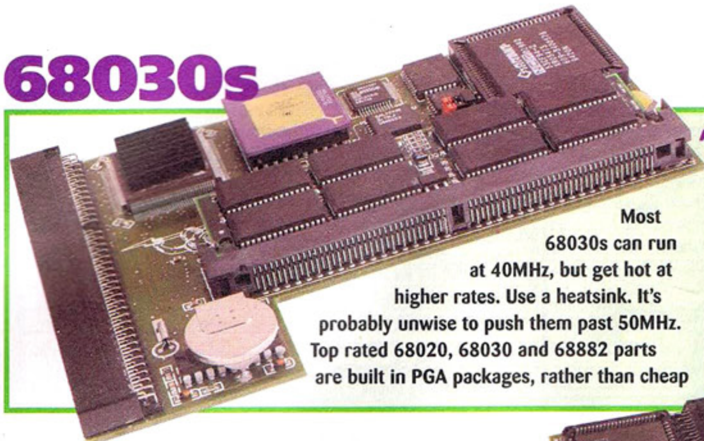
Cut-down chips have a couple of letters after the 68. LC chips are sold without the internal FPU, and "Embedded Controller" EC chips only guarantee the integer unit and caches. At first Motorola shipped full 68060s stamped 68EC060 and 680LC060 but now they make cheaper, faster LC versions with no FPU.

The numerals after 68 denote the chip type: 030, 882, 040, 060 or whatever. Then comes RC for ceramic PGA, or FN or FE for cheaper plastic packages, and the frequency rating in MHz.

WEB LINKS

http://www.geocities.com/Area51/1739/1260.html
http://www.starnet.com.au/davem/amiga.html
http://www.zap.to/ppcoverclock (PPC)
http://violet.berkeley.edu/~schrier/mhz.html (Mac)
http://www2.shore.net/~mdevoe/overclockers.html
http://www.phase5.de
http://www.micromac.com/products/speedy.html
http://www.canit.se/~glenn/ (Apollo)

68030s



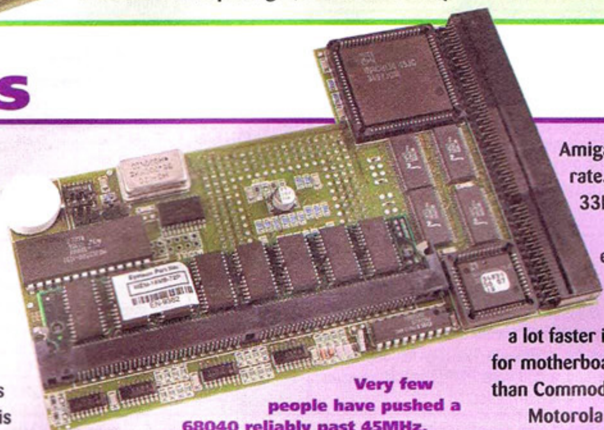
A heatsink is not necessarily a benefit on a 68030.

Most 68030s can run at 40MHz, but get hot at higher rates. Use a heatsink. It's probably unwise to push them past 50MHz. Top rated 68020, 68030 and 68882 parts are built in PGA packages, rather than cheap plastic flat packs. The ceramic material is more expensive, but conducts heat more effectively.

Heatsinks are of limited use on 68030 and earlier chips. The silicon sliver that does the work is mounted on the base of the chip package, so there's no direct path for heat-flow to the top of the chip, where the heatsink sits.

A Commodore 2630 accelerator is happy enough to be pushed from 25 MHz to 28.6, using a scrap A2000 motherboard crystal, but gurus at 30MHz. Some 68030 cards trip over at speed unless you restrain RAM access with a CPU NOBURST command.

68040s



Very few people have pushed a 68040 reliably past 45MHz.

From the 68040 onwards Motorola assembled processors the other way up – with the chip hanging down from the 'roof' of the package – making top-mounted heatsinks and fans much more effective. The chips have at least four times as many transistors, so this is just as well.

Motorola originally branded 68040s at 20, 25 or 33MHz. These processors use two clock signals. The official speed rating is that of the bus interface, and the CPU core needs a second synchronous clock, running twice as fast, for internal timing. A 25MHz 68040 is normally shipped with a 50MHz crystal, and so on. The Warp Engine uses a clock doubler chip instead, so its 40MHz crystal generates a 80MHz internal pulses.

68040s can safely be pushed from 25 to 28MHz, synchronising better with Amiga motherboard signals which run at multiples of the A1000 clock rate. Some A4000 users pushed Commodore's 3640 board to 32 or 33MHz.

Fan cooling might get a 33MHz-rated 68040 up to 40MHz. My first experiments were on a Warp Engine, sold with no processor, but a socket expecting the 25MHz rated 68040 from Commodore's 3640 board. The Warp Engine came with a 28.3MHz crystal, but seemed a lot faster in practice thanks to local memory sockets, rather than an interface for motherboard RAM. The Warp 28 accesses 70 nS SIMMs three times faster than Commodore's 3640 motherboard interface.

Motorola were reluctant to go past 33MHz 68040s with 66MHz internals, but Apple pushed them to 40MHz which demands a cooling fan. My Warp Engine would not run at 40MHz when I tried it with the Commodore chip. Later I put that back in the 3640, sold it off, and imported a 33MHz rated part from the States. This was happy at its rated speed, but not 40MHz, but now a friend runs it reliably at 40MHz using more modern SIMMs.

I've not found anyone who has pushed a 68040 past 45MHz reliably. You sometimes see adverts for 50MHz accelerators in the Mac market, but these usually refer to the internal, doubled, 'Pclock' rather than the external 'Bclock'.

68060s



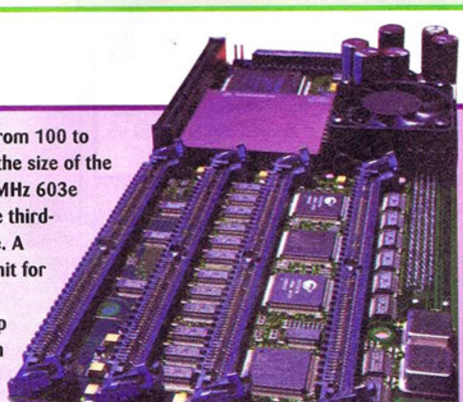
Watch out for EC or LC 060s if you want faster FPU speed.

Many 68060s can run at 60MHz, or 66MHz at the cost of Concerto and SCSI compatibility. Some later parts manage 70MHz. Only the LC and ECs are actually rated at 66 or 75MHz, but full FPU 60MHz rated parts are available, potentially faster than the parts with no suffix letter. Mark 2 Cyberstorm 68060s tolerate overclocking better than the Mark 1 or GVP 4060, as it starts with a slower RAM interface.

One user claims to run a 60MHz chip on an Apollo 1260 at 80MHz, by moving the jumper beside the oscillator from '060' to '040', and tweaking a soldered jumper marked 'pad' in the corresponding place on the other side of the board. This is connected to ground if the RAM is relatively fast. To suit slower RAM, connect it to the right solder pad instead.

The 68060 runs cooler than earlier chips because it has a 3.3 volt core, like PPCs. Conversion from the Amiga 5 volt supply generates some heat, but not as much as it saves, and away from the processor itself.

POWERPCs



Smaller PPC chips often mean faster ones. You should see the size of G3!

The PPC603e has seen three redesign 'shrinks' from 100 to 350MHz, and current chips are less than a third the size of the originals, inside half a square centimetre. A 200MHz 603e uses less power than the 133MHz model, and the third-generation 300MHz part typically needs no more. A 300MHz Mac 604e can do 350MHz, the upper limit for current Amiga PPC chips.

On Usenet's comp.sys.amiga.hardware group Keith Blakemore-Noble touts a Cyber-A3000 with 70MHz 060 and 245MHz 604e. He pushed the PPC up to 263MHz but then had to slow the memory access to the 70 ns setting, so the overall benefit was minimal. The Cyberstorm PPC boot menu has a RAM speed option, and SetMemMode from phase 5's FTP site can configure PPC board wait states for 70 ns RAM, and tweak precharging experimentally for parts faster than 60 ns. Overclocked machines prefer a 70 ns setting and 60 ns SIMMs.

Blizzard 603e/240 users report it works at 270MHz but baulks before 300. You set this with a crystal for the bus clock and an array of links setting a multiplication factor for the bus rate. The default is *4, so a 66.67MHz crystal with the same jumper setting may perform better, given fast RAM, than the original 60MHz crystal *4.5 to 27 MHz. Some boards sold as 200MHz units were shipped with 60MHz crystals and a multiplier of three and a half times, giving 210MHz. Methods abound to rate PPC MHz, from memtest through VoxelSpace to serious MPEGing!

EYELINE

Bringing you the latest Amiga News from Eyetech
http://welcome.to/amiga.world

LATEST NEWS IN BRIEF

phase 5 PPC G3/G4 & Cybervision NG cards

We will be the first to have these new cards in stock so why not reserve yours now? No funds will be taken until the goods are shipped.

OS 3.5

The latest availability date we have from Amiga is the end of September 1999 (at 2/9/99) - so realistically we expect to be shipping this OS upgrade around mid-October. OS 3.5 requires 3.1 Kickstart ROMS, so if you haven't fitted them already now is an ideal time to upgrade - quote order code: SYS-KS31-ROM - £29.95.

NET FOR NOWT

All modems and internet software now include optional free internet connection with 10 email addresses and 25mb of webspace. Make sure you ask for 'FREE ISP' when ordering.

CLOCK UP

4-way clock port adapters are finally in stock - quote order code: ADPT-CLK-EXP - £19.95.

GREAT SUMMER SPECIALS
FREE COMPAQ MONITOR

If you buy an EZVGA-Plus external compact scandoubler/flickerfixer and a pair of 240W PMPO amplified speakers (SPK-240W) before 30 September 1999 (or until stocks are exhausted), we will give you a 14" SVGA Compaq ERC Monitor absolutely free (normal delivery charges apply). These monitors are ex-corporate replacements, fully tested and without screen burns or scratches. Call for further details.

DIMAGE V CAMERAS BACK IN STOCK

When we announced the availability of the Dimage Camera 2 months ago we were inundated with orders and sold out completely within days (some purchasers were so impressed they ordered a second camera immediately after receiving the first!) Well, we have managed to buy the last remaining stock of this superb camera and the bundle price - complete with the acclaimed CamControl software for the Amiga (as well as Minolta's own Mac & PC software) is still just £259.95. (These cameras sold for over £800 just a few months ago). Please ring or write for further details.

BACKUP CD BURNING HAS NEVER BEEN CHEAPER

We have just purchased a batch of 2x2x6 bare CD ReWriter mechanisms - suitable for towers priced at just £139.95, or £179.95 complete with MakeCD software and one rewritable 650MB disk. Gold (write once) blank CDs are just £10 for 10 when purchased with any CDWriter/ReWriter mechanism.

MAKE YOUR AMIGA ETHERNET READY (with SANA II drivers)

Hydra Z2/Z3 Ethernet Cards now back in stock - just £99.95.
A1200 PCMCIA ethernet cards and drivers just £79.95
(all A1200s need a CC_RESET fix to operate reliably with any PCMCIA ethernet card).

NOT TOWERED UP YET?
Now is the time to buy a MK4 EZTower

Until 30 September we are selling the MK4 Ready-to-Use EZTower for just £99.95 including power supply, LED adapter, floppy drive cable, faceplate and either a PC or A4000 keyboard adapter (PC keyboard £12.95, PC wireless infrared keyboard £39.95, genuine A4000 keyboard £34.95). And why not add a 24 speed CDROM, EZCD-XL buffered interface, cables and CDROM software for just £59.95.

AMIGA-NG UPDATE
Preserve your investment with an EZTower

Amiga have announced that the Amiga-NG, (target availability Q1/Q2 - 2000) will be available as a PC-format motherboard. It will therefore fit directly into any EZTower Mk4 alongside (and networked to) your existing A1200.

EZPC TOWER LINUX OPTION

If you do not require the retargetable graphics capability of the Siamese system we will be shipping the EZPC tower systems with the option of Linux installed on the PC side (with drives etc networked to the Amiga as in Siamese-based EZPC systems) from 1 September 1999. As Linux forms the basis of the development system for the Amiga-NG, and subsequent versions of the Amiga-OE, this forms the ideal platform for developers and users alike. As an added bonus you will not need either Windows 9x or Siamese software licences - so the cost of ownership will be lower as well. Ring for further details.

MAGIC PACK UPGRADE SPECIALS WITH FREE HARD DRIVE

There are still a lot of Amiga users who call us who have only got basic floppy disk A1200s. If that applies to you - or to someone you know - then here is a very special deal. Get the full Amiga Magic Pack software (Wordworth 4SE, Photogenics 1.2SE, Personal Paint 6.4, Organiser, Turbocalc, Datastore 1.1, Pinball mania, Whizz and SCALA MM300) for just **£44.95**. This software is shipped fully licenced, ready to run on a 170mb 2.5" hard drive (but without backup diskettes or manuals - this is your responsibility). Although you only pay for the software the hard drive (which is otherwise unused) is yours to keep. Limited stocks are available. Offer expires 30 September 1999. Please specify whether you have 3.0 (V39.x) or 3.1 (v40.x) Kickstart ROMS when ordering.

NEW!! ENGRAVED AMIGA TOWER 5.25" FACEPLATES FOR JUST £4.95!

FIVE NEW PRE-CONFIGURED MK4 EZ-TOWER MAGIC PACK SYSTEMS

Although the basic Amiga International desktop console Magic Pack still represents excellent value for money (see the box-out below) more and more customers have been asking us for new Amiga 1200s which are already EZTowered up. So here they are, five pre-configured systems to suit different applicants and budgets. All systems come with brand new KS 3.1/WB 3.1 disk and manuals, mouse, 2mb graphics memory and a fantastic productivity software bundle including Wordworth 4SE, Turbocalc 3.5, Datastore 1.1, Photogenics 1.2SE, Personal Paint 6.4, Organiser 1.1, & Pinball Mania & Whizz games. Hard drive versions also come with Scala MM300 preinstalled.

A1200T-LE (A1200T - Light Edition)

This is the best choice for existing A1200 users who want to upgrade to a new Workbench 3.1 machine and add their existing hard hard drives and other peripherals and accessories themselves.

A1200T-PS4 (A1200T ProSystem-4)

The A1200 Professional System 4 comes complete and ready-to-run with 3.2GB hardware, 24-speed CDROM, EZCD-XL buffered interface, '030/40 accelerator with MMU, FPU, 8mb and a CDDA/Amiga audio mixer output. Other options available - see table on the right.

A1200T-PS4/XL (A1200T ProSystem-4 XL)

This system is configured as for the A1200T-PS4 but with a faster CDROM and an 040/28mhz accelerator with FPU, MMU, 16mb memory and a pair of mains-powered 240w PMPO stereo speakers.

A1200T-SE (A1200T - Studio Edition)

This is the system for serious Amiga-based multimedia work. It is configured as the A1200T/PS4/4XLS but comes with an LS120 drive (reads & writes 1.44 PC diskettes & 120MB Amiga/PC cartridges), an EZVGA scandoubler/flickerfixer and a 15" SVGA digital monitor.

A1200T-SE/XL (A1200T - Studio Edition XL)

This is the ultimate A1200 multimedia tower system. It is s configured as the A1200-SE system above and uprated to include a CDReWriter with MakeCD software and 10 blank CD-recordable disks, a 4.3GB hard drive, an 060/66 accelerator with 32mb memory, a 17" digital SVGA monitor, a Prelude 1200TW full duplex hi-fi sound card and software and a 600 watt PMPO amplified sound system with stereo speakers and subwoofer.

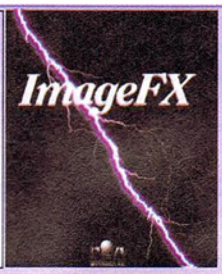
System Components A1200T -	LE	PS4	PS4/XL	SE	SE/XL
Mk4 EZTower	Yes	Yes	Yes	Yes	Yes
PC keyboard & keyboard adapter	Yes	Yes	Yes	Yes	Yes
Upgrade to A4000 k/b and k/b adapter	+£20	+£20	+£20	+£20	+£20
A1200 motherboard with K/S 3.1/WB3.1	Yes	Yes	Yes	Yes	Yes
Sony floppy drive & EZDF0 interface	Yes	Yes	Yes	Yes	Yes
Magic Pack productivity software + 2 gamesYes	Yes	Yes	Yes	Yes	
Upgradeable to full EZPC Tower system	Yes	Yes	Yes	Yes	Yes
Scala MM300 multimedia software	n/a	Yes	Yes	Yes	Yes
EZCD-XL 4-device buffered interface	n/a	Yes	Yes	Yes	Yes
EZTower CD audio/Amiga audio mixer	n/a	Yes	Yes	Yes	Yes
3.2GB Tower drive wit WB3.1 installed	n/a	Yes	Yes	Yes	n/a
4.2GB Tower drive with WB3.1 installed	n/a	+£20	+£20	+£20	Yes
LS120 with 1 cartridge & EZIDE s/w	n/a	+£80	+£80	Yes	n/a
CDRom / CDReWriter + 10 gold disks	n/a	24x	32x	32x	CDRW+GD
1230/40 MMU FPU accelerator - 8 MIPS	n/a	Yes	n/a	n/a	n/a
1240/28 MMU FPU accelerator - 21 MIPS	n/a	+£60	Yes	Yes	n/a
1240/40SE MMU FPU accelerator - 30 MIPSn/a	+£100	+£40	+£40	n/a	
1260/66 MMU FPU accelerator - 51 MIPS	n/a	+£250	+£185	+£185	Yes
Memory included (ring for upgrade prices)	n/a	8MB	16MB	16MB	32MB
EZVGA scandoubler with flickerfixer	n/a	+£80	+£80	Yes	Yes
15" SVGA monitor	n/a	+£110	+£110	Yes	n/a
17" SVGA monitor	n/a	+£190	+£190	+£75	Yes
Prelude1200TW hifi full duplex sound card	n/a	+£140	+£140	+£140	Yes
Amplifier (PMPO watts), speakers (+ subwoofer)	n/a	n/a	240W	240W	600W+SW
Cost with options as specified:	£299.95	£549.95	£669.95	£999.95	£1799.95

If you don't have the need or the space for an A1200 Tower System then we can still supply brand new A1200 desktop console Magic Packs - either floppy drive only, or upgraded to a 170mb hard drive, EZCD-XL buffered interface and external CDROM socket with CDROM interface.

A1200 170MB HD desktop console Magic Pack & CD ROM Interface - £248.95

A1200 diskette desktop console Magic Pack - £179.95

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Nova's product range includes Image FX - probably the best image processing package of all time available for the Amiga - the Aladdin 4D solid modelling and rendering package and Wildfire animation effects and sound integration package.

If you have read Kermit Woodall's series in recent issues of AF then you'll know how powerful IFX4 is, and why we are so pleased to have been chosen as its exclusive UK distributor by Nova Design. As an introductory offer you can get 15% off the prices quoted in this issue for any of Nova Design's products (including add-ons and upgrades - proof of purchase required) until 30 September 1999 by sending in the coupon from the editorial section of AFormat 128.

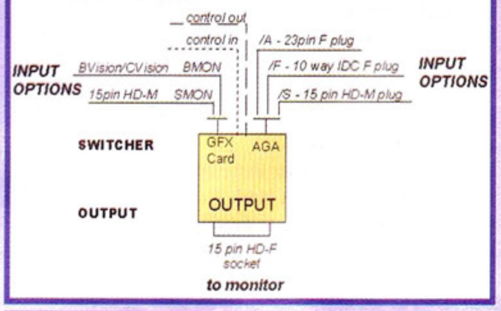
GRAPHIC CARD SWITCHING AT A KEYSTROKE!

A brand new A4000 keyboard adapter (to fit the A1200 or A4000) allows you to use a single keystroke to toggle your monitor between the Amiga's AA chipset output (via a scandoubler/flickerfixer) and your graphics card output (eg BVision) using a single keystroke.

The adapter works in conjunction with either the MK1 or MK2 BMON/SMON range of video switches from Eyetech, replacing the existing manual toggle switch connection.

By default the blank key (which is next to 'return' on international keyboards) is used to toggle the display, but a jumper option allows the F10 key to be used instead. The adapter fully supports all multiple press key strokes and has a microprocessor-controlled reset circuit for proper detection/execution of the 'ctrl-Amiga-Amiga' keystroke combination. The EZKey SE A/B is priced at just £29.95, or £59.95 complete with A4000 keyboard (international model).

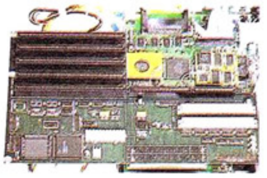
BMON/SMON CONFIGURATIONS



EZBUS-Z4 ZORRO ADAPTER IS HERE!

Sorry for the delay but you'll find its worth the wait -

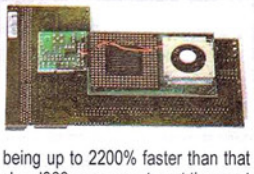
- Properly terminated Zorro bus
- 4 clock ports
- Standard AT style power input
- 5 x Zorro 2 slots, one with video slot (video slot adapter needed)
- 2 x 19 MB/s Z4 slots for graphics card and/or fast EIDE controller
- Optional 19 MB/s 'Fast Zorro 2' mode



And the price - just £129.95 until 30 September 1999 (£149.95 thereafter)

LIMITED EDITION 1260/75LC 60 MIPS ACCELERATOR
Exclusively available from Eyetech - at a price lower than that of the 1260/50!

The fastest 680x0 accelerator for any Amiga is now available (exclusively) from Eyetech. Rated by Sysinfo at around 60 MIPS the accelerator is suitable for both desktop and towered A1200s. The integer processing speed of the 75MHz 060 is - in Simon Goodwin's words - 'awesome', being up to 2200% faster than that of an an 030/50! A.I. recommend an '060 processor to get the most out of OS 3.5 - see separate news story below.



The 1260/75 LC comes with a full MMU but no FPU as no internal or external Motorola FPU module will work at these speeds. As most Amiga software is supplied with non-MMU versions, these should still easily out-perform the FPU versions on a lesser processor in all but a handful of cases. And now for the best news of all. You can have the fastest O/S-compliant Amiga on the planet for just £249.95! (Optional trade-in to MMU 060 within 30 days).

EZPC-PRO & NEW ENTRY-LEVEL EXPANSION SYSTEMS FOR YOUR A1200

3 pre-configured EZPC-Pro systems to suit different applications and pockets

The EZPC system works by making the PC motherboard act as a slave processor to your A1200 - looking after the the operation of the systems accessories whilst you and your Amiga get on with creative work. (You can of course use the PC as a computer in its own right if you really insist!)

Its also important to understand that EZPC A1200 expansion system is based on a real Amiga and is not at all comparable with other PC-only systems running a clever, but slow, Amiga emulator as a PC application.

In fact there are such a range of applications that the EZPC system can open up to an Amiga user that we have introduced three systems pre-configured for different types of use. These are:

A1200 EZ-PC TOWER-HSE (Home Studio Edition) - £999.95

The HSE configuration comes complete with TV tuner with cut-and-paste teletext facilities, 24-bit video frame grabber and video clip capture card, 30 bit colour scanner, 56K modem and unlimited internet access at local call rates - as well as the standard EZPC system components

A1200 EZPC TOWER-DVE (Digital Video Edition) - £1369.95

The DVE is fitted with a purpose-designed, hardware-based MJPEG non-linear video editing suite for home/semi-professional video production. It also comes with built-in CD Writer/ReWriter (with drag-and-drop CD writing software) for producing your own audio and video CDs.

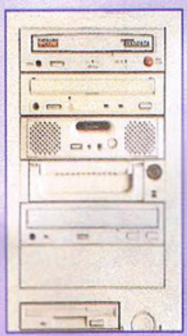


The EZPC Tower system showing the A1200, the PC rear sockets, card slots and removable side panels

A1200 EZPC TOWER-XLS - £1995.95

This must be the ultimate creative multimedia expansion platform for your A1200. It comes equipped with non-linear video editing hardware and software, A4 30-bit flatbed scanner, DVD ROM hardware & MPEG 2 decoder (for DVD video playback), CD ReWritable drive, 15" Colour Monitor, 56k data/fax/voice modem with voicemail and internet software - and much more.

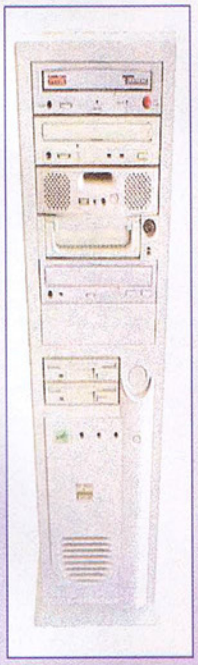
A1200 EZPC TOWER-3.1+ - £395.95



Finally, if your A1200 is feeling a bit tired we can supply your chosen EZPC Tower system with a brand new Kickstart 3.1 A1200, complete with Magic Pack software, 24 Speed CDROM, 3.2 GB hard drive (with W/b & Magic Pack software preinstalled), EZCD Mk4 interface and EZIDE software ready installed and connected up. All you need to do is to slot in your existing accelerator, fit your old hard drive into the external mounting drawer provided (see photo) switch on and start using your new A1200 EZPC Tower system.

All these three packs are designed for you to fit your existing A1200 in the EZPC Tower and connect it up. This normally takes around an hour, but if you would prefer to receive your system ready to use, we can arrange to collect your Amiga, do the work for you and ship your new system back all ready to plug-in to mains and phone outlets! Please ring for details.

EZPC-Pro Tower Model	HSE	DVE	XLS
EZPC-Tower/250W psu/PC mouse/HD FD	Yes	Yes	Yes
EZ-Key k/b adapter PC k/b & rem switch	Yes	Yes	Yes
BMon/KMon video & k/b switch	Yes	Yes	Yes
Ultra DMA hard drive 4.3GB	Yes	Yes	Yes
Upgrade to 17.2GB UDMA Drive	+£99.95	+£99.95	+£99.95
32-speed CDROM	Yes	Yes	n/a
DVD-ROM (inc 20xCDROM capability)	n/a	+£79.95u/g	Yes
CDReWriter (inc 16xCDROM) & s/w	n/a	Yes	Yes
10 x blank CDR's 650MB	n/a	Yes	Yes
100Mhz bus PC motherboard w/64MB	Yes	Yes	Yes
High perf hi-res 3D Gfx card w/MPEG-1	Yes	Yes	Yes
TV/teletext/framegrabber	Yes	n/a	n/a
Hardware MJPEG Video Editor	n/a	Yes	Yes
Hardware MPEG-2 Video decoder	n/a	+£59.95	Yes
CD-quality sound card with MIDI	Yes	Yes	Yes
Software controlled Amiga/PC audio mixer	Yes	Yes	Yes
Internal 60W PMPO monitor speakers	Yes	Yes	Yes
Siamese RTG2.5 software	Yes	Yes	Yes
Amiga PCMCIA & PC ethernet cards/cabs	Yes	Yes	Yes
30-bit high res A4 flatbed scanner	Yes	+£59.95	Yes
Internal 56k data/fax/voice modem	Yes	+£49.95	Yes
Unlimited access Internet package	Yes	inc. with above	Yes
15" SVGA monitor	+£109.95	+£109.95	Yes
17" SVGA monitor	+£189.95	+£189.95	+£99.95
Win 9.x/Lotus Smartsuite bundle	+£99.95	+£99.95	Yes
Miami Amiga TCP/IP stack	+£24.95	+£24.95	+£24.95
Cost with options as specified	£999.95	£1369.95	£1999.95



ENTRY LEVEL EZPC TOWER SYSTEMS NOW AVAILABLE FROM JUST £599.95

UPGRADE PACKS FOR EXISTING EZTOWER USERS JUST £499.95

The EZPC-Pro Tower configurations (featured on the next page) have produced a tremendous level of interest - and orders - from professional and serious home Amiga users alike. We have also had many requests for a lower cost, entry level solution, from those Amiga users whose budget is more modest. So here it is - the EZPC-SLE - giving most of the potential of the EZPC-Pro systems (featured opposite) in an affordable (but expansible) package.

The EZPC-SLE specification is as follows:

- Full EZTower Mk4 with removable side panels PSU (not with upgrade kit)
- PC Keyboard & EZKey-SE/PC adapter & 250w keyboard (not with upgrade kit)
- 100MHz-bus motherboard with 4x UDMA IDE ports
- 333M II CPU with 1MB cache memory
- 2 x high speed serial & 1 x EPP parallel port
- 32MB 100MHz memory
- 8MB SVGA SIS Graphics
- 16 bit 3D sound record and playback
- 3.2GB UDMA hard drive
- 24 speed CDROM
- PC mouse
- Remote Amiga/PC keyboard switch
- Siamese 2.1 RTG serial Amiga-PC networking software and cable.
- TV/Teletext tuner with 24-bit still & video capture and Amiga composite video input
- EZVGA-INSD internal scandoubler and BMon switch to display your Amiga output on a PC screen

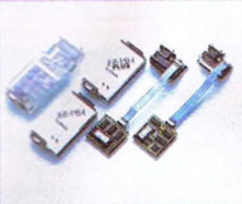
You will also need to have Windows 9x operating system and an SVGA PC monitor - see the panel on the EZPC-Pro Tower system panel for further information.

A collection, installation and delivery service is also available - please ring for details.

EZVGA Scandoublers & Flickerfixers from just £48.95

All scandoublers/flickerfixers allow the Amigas 15Khz modes to display on a PC SVGA monitor. Flickerfixers allow 15KHz interlaced screens to be displayed, rock-steady, at twice the standard vertical resolution. Other modes are passed through unaltered.

EZVGA-Mk2	Compact, external, upgradeable scandoubler (to full FF)	£69.95
EZVGA-Plus	Compact, external scandoubler with full FF	£99.95
EZVGA-SEFF	Economy external scandoubler with full FF	£89.95
EZVGA-INSD	Internal A1200/A4000 scandoubler (not upgradeable)	£48.95
EZVGA-INFF	Internal A1200/A4000 scandoubler with full FF	£79.95
EZVGA-INFF2	Internal A1200/A4000 s/doubler with full FF for BMON	£89.95



AMIGA SVGA MONITORS

For use with Amiga Zorro & the new PPC Graphics Cards, Scandoublers & the EZPC-Tower system



- Special pricing on scandoublers/flickerfixers bought with monitors from just £45 extra
- Monitor specifications are quoted as the highest vertical refresh rate at the maximum resolution. Higher refresh rates (>=72Hz) at lower resolutions are available and give a more visually relaxing display.
- Scandoubler/flickerfixers have resolutions governed by the Amiga's AA/AGA chipset and are restricted to a maximum vertical refresh of 73Hz and a maximum usable resolution of 724Hx566V.
- The PPC BVision supports 1600x1280@72Hz. You will not gain the full benefit of this superb graphics card without a monitor that supports this resolution at that refresh rate.

14" SVGA 0.28DP, 1024Hx768V @ 60Hz £89.95
15" SVGA 0.28DP, 1024Hx768V @ 60Hz £119.95
17" SVGA 0.28DP, 1280Hx1024V @ 60Hz £199.95
Engineering workstation grade monitor, 160MHz, Diamondtron tube:
17" SVGA 0.25DP, 1600Hx1280V @ 75Hz £399.95
SPECIAL OFFER 15" MONITORS FROM £99.95 - ring for details

6 models of BMON are available from £39.95 - send for details

The BMon takes two video inputs - one from an Amiga's AA chipset (either directly or via a scandoubler/flickerfixer) and the other from a graphics card (BVision, Cybervision, Picasso, Ateo bus card etc) - and switches your SVGA or multisync monitor between them. The BMon uses high quality video switchers so - unlike conventional switchboxes - there is no significant loss of quality from either source. It can also be used - in its SMon form - for switching an SVGA monitor between a PC and Amiga system. As standard the BMon accepts input from a BVision or Cybervision card and from an Eyetech EZVGA internal flickerfixer-2 . It is manually switched by a remote miniature toggle switch positioned - for example - on the front panel of a tower system. The KMon switches keyboard output in an Amiga/PC dual configuration using the same control signals.

The New Eyetech Mk 4 EZTower System - from just £79.95

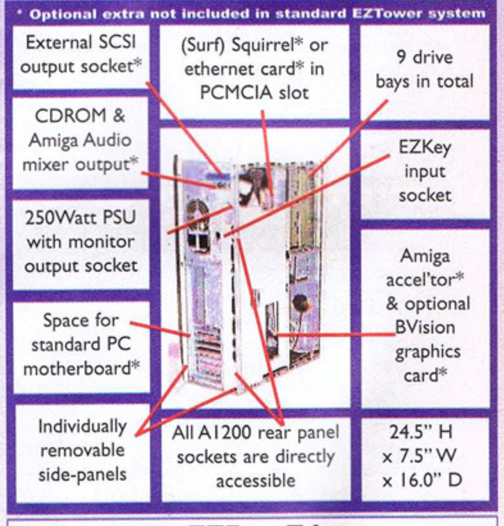
"This is definitely one of the easiest solutions to building your own Tower" - Amiga Format

"The Eyetech Tower offers clever solutions with a Velcro easyfit mentality" - CU Amiga

- The easiest way to re-house your A1200 by far
- Expand your system with EZPC (EZTower Mk4) or Zorro slots (EZTwr Z4)
- 250 W PSU with PC and Amiga power connectors
- No expensive PCMCIA right-angle adapter required
- Available in 5 models to suit different skills and budgets
- The only tower allowing both PC & A1200 in one case

	Backplate Kit	DIY* EZTower	Full EZTower
DFO: face plate & ribbon cable	Yes	Yes	Yes
Custom backpanel w/SCSI, audio KOs	Yes	Yes	Yes
A1200 power & LED adptrs	Yes	Yes	Yes
CE-approved metal PC case	n/a	Yes	Yes
No of bays/PSU capacity	n/a	9/250W	9/250W
Directly accessible PCMCIA slot	Yes	Yes	Yes
DIY assembly instructions	Yes	Yes	n/a
Installation instructions	Yes	Yes	Yes
PC board/Siamese compatibility	Yes	Yes	Yes
Assembled & A1200-ready	No	No	Yes
Eyetech installation option	No	No	Yes
Cost with options as specified	£39.95	£79.95	£99.95
With EZKey/PC k/b (w/A4k k/b+£20)	- n/a	£99.95	£119.95

*With the DIY EZ-Tower you have to remove the PC tower back panel and some internal shelving and fix the new back panel in place



EZBus-Z4

A new Zorro adapter from Eyetech featuring regular Z2 slots and 2x 19MB/s local bus connectors

EZTower-Z4 - A new EZTower specifically designed to take the EZbus-Z4

EZTowerZ4, k/b adapter, PC k.b & EZBus-Z4	£249.95
As above - introductory price - advance orders	£199.95

Peripherals & Storage

Award winning UMAX SCSI Flatbed Scanner



- **600 x 300dpi optical resolution, single-pass 24-bit A4 flatbed scanner**
- Comes with Photoscope (Amiga) and Mac software. Compatible with all modern SCSI interfaces - including PPC, Blizzard & Classic Squirrel (but not Surf-Squirrel)
- PCW 'Best Scanner of 1998' Award - July 1998; PCW 'Best Scanner' September 1998
- **Highly-acclaimed ArtEffect-SE v1.5 (normally £59.95) free with this bundle whilst stocks las t....**

lower prices

REMAINING STOCK of Amiga UMAX Scanner & PhotoScope/ArtEffect Bundle now just £149.95

The Top-Rated CD-Plus Range for the A1200

"Eyetech have come up with a real winner with this new CDROM drive" - Ben Vost, AF

If your A1200 hasn't got a CDROM then you don't know what you're missing!

At these prices there is really no excuse!



- Whisper quiet 24 or 32-speed CDROM mechanism
- EZCD-XL 4-device buffered interface, 3-connector 40-way and 2-connector 44-way cables included
- CDPlus driver software specially written for Eyetech by the author of IDE-fix
- Optional Amiga and CDDA audio mixer with Gold phono audio jacks - just £14.95 each
- 20-watt CE-approved PSU complete with 13A plug.
- Optional upgrade to MiniTower or Desktop case with 230W PSU (which can also hold extra drives and power your Amiga) just £20 extra!
- **2 Free CDs whilst stocks last**

lower prices

Complete CDPlus Systems: 24-speed just £74.95; 32-speed just £84.95

Bare mechanisms for Towers: 24-speed just £34.95; 32-speed just £44.95!

EZReWriter CDROM Burners

lower prices

Make your own music and data CD's, back up data for less than 0.15p/MB .



- Both are IDE/ATAPI reader/writer units with MakeCD Amiga writing software
- EZWriter units cut 'Gold' CD blanks at 2x speed & read CDROM's at 8 speed
- EZReWriter units cut 'Gold' CD blanks and CD rewritable disks at 2x speed and read conventional CD's at 6x speed
- Gold 650MB CD blanks (for use with either model) are available at ten for £10 at time of purchase
- CD rewritable disks are just £5 each when bought with the EZReWriter

EZWriter Internal

EZReWriter Options

EZReWriter-Bare	for A4000 or A1200 Tower (bare drive - no MakeCD)	£139.95
EZReWriter-INT	for A4000 or A1200 Tower (with MakeCD)	£179.95
EZReWriter-SE	External A1200 CD ReWriter with separate 100w PSU	£219.95
IDE interfaces	EZCD-SE I/F, 44-way & 40-way cables & CDROM s/w -	add £20
if required . . .	EZCD-Mk4 I/F, 44 & 40-way cables & EZ-IDE s/w -	add £30
	IDE-Flyer interface, cables & s/w -	add £50

A1200 TOWER & INSTANT DRIVES

- All drives come ready to use with WB3.0 pre-installed & WB2.x install script
- All drives over 200 MB come with over 45 top quality utilities (not shovelware) and MMe multimedia authoring s/w pre-installed, configured & ready-to-run

LS120 & Zip Drives (ATAPI i/f & EZIDE needed)

LS120 (HD Floppy/120MB Cart) - £79.95 3 x 120MB carts - £29.95
Zip Drive (Mac emul. compatible) - £79.95 3 x 100 MB carts - £29.95

TowerDrives (3.5" drives, 25mm high)

2.5GB - £89.95 3.2GB - £99.95 4.3GB - £109.95

17.2GB drive for EZPC system or IDE Flyer - £199.95

2.5" InstantDrives for the A600/A1200/SX32

20MB	Entry-level drive for the SX32/A600	£29.95
170MB	Entry-level drive for the SX32Pro/A1200	£49.95
260MB	Entry-level drive for the SX32Pro/A1200	£59.95
3.2GB	Ultraslim 9mm drive - A1200/600/SX32	£149.95
4.1GB	Ultraslim 9mm drive - A1200/600/SX32	£169.95



EYETECH GROUP LTD

The Old Bank, 12 West Green, Stokesley, North Yorkshire TS9 5BB, UK
Tel: 07000 4 AMIGA ~ 07000 4 26442 & +44(0)1642 713 185 Fax: 44(0)1642 713 634
Net: sales, info @eyetech.co.uk. www.eyetech.co.uk.

UK Bank/BS cheques, Visa*, Mastercard*, Switch, Delta, Connect, Solo, Electron. Postal/Money orders accepted. (*A 3% charge applies to all credit card orders). Due to space limitations some of the specs given are indicative only - please ring/write for further details. Please check prices, specification and availability before ordering. If ordering by post, please provide a daytime telephone number. Goods are not supplied on a trial basis. A1200 items are tested with a Rev 1.D.1 motherboard - other boards may need modification. Items subject to mechanical wear & tear (eg keyboards) are limited to 90 days warranty on those components. E.&O.E. All prices include VAT at 17.5%. Orders sent outside the EC do not incur VAT - divide the prices shown by 1.175 to arrive at ex-VAT prices. All goods are offered subject to availability and our standard terms & conditions, a copy of which are available upon request.

UK Next Day Insured Delivery Charges: Software/Cables, EZCD I/F = £3.00 2.5" Drives, Accelerators, Manuals = £7.00, 3.5" Drives, FDDs, PSUs, SX32 = £9.00, CDPlus, Minitower, Desktop = £11.00, EZTW & EZPC = £15.00. Worldwide in 2-7 days from receipt of faxed order & payment details.

EYETECH

Accelerators & Interfaces

NEW

APOLLO Accelerators for the A1200

1230/40 TURBO PRO MK3



High performance 1 or 2 simm entry level accelerators for A1200 desktop consoles or tower systems

MMU, FPU & 1 SIMM socket to 32MB only **£59.95**
MMU, FPU & 2 SIMM sockets to 64MB only **£69.95**

A1240/28	'040/28MHz/MMU/FPU*	(21 MIPS)	£124.95
A1240/40SE	'040/40MHz/MMU/FPU*	(30 MIPS)	£167.95
A1240/40	'040/40MHz/MMU/FPU*	(30 MIPS)	£184.95
A1260/50	'060/50MHz/MMU/FPU*	(39 MIPS)	£264.95
A1260/66	'060/66MHz/MMU/FPU*	(51 MIPS)	£349.95
A1260/75LC	'060/75MHz/MMU*	(60 MIPS)	£249.95

TIP Buy your memory with the accelerator to ensure full compatibility

*To 32MB. Optional 2nd simm socket (tower only) offers 64MB total

The Apollo A1260/75LC is the fastest Operating System-supported Amiga accelerator currently available

20% off memory prices when bought with an Apollo or phase5 accelerator

phase5 PowerUp A1200 PPC + '040/'060 Accelerators

Without SCSI (not upgradeable) inc. MMU & FPU



160 MHz 603e PPC'040/25/MMU.FPU only £199.95
160 MHz 603e PPC '060/50/MMU/FPU only £479.95
240 MHz 603e PPC'040/25/MMU/FPU only £319.95
240 MHz 603e PPC'060/50/MMU/FPU only £549.95

Add just £69 to the above prices for factory fitted on-board Fast SCSI II Interface

Blizzard Vision PPC 8MB Graphics Card

Unbelievable quality and speed - 1600x1280@72HZ!
No Zorro slots needed!
NEW! 8mb card - £159.95 or just £139.95 with a PPC
The fastest, most highly specified graphics card you can buy for your A1200

A1200 Clock Port Expansion Cards

For non-Zorro A1200s the best expansion route is via the (unused) clock port

PortJunior Mk2	1x 460kb serial port	39.95
IOBlix1200S	1x 1.5 MB/s serial port	49.95
IOBlix1200P	1x EPP parallel port	49.95
	(Drivers for PC parallel port scanners, Zip drives etc., available shortly)	
PortPlus Mk2	2x460kb serial & 1x800kb parallel port	69.95
Catweasel-2	HD Amiga/PC floppy controller	49.95
ClockUp	4-way clock port expander	19.95

Prelude 16bit Hi-Fi Full Duplex Sound Card

"Easily the best A1200 sound card so far" - Tony Horgan, AF April 99



- Clockport fitting - no Zorro slots required
- Simultaneous recording, playback and mixing
- MIC, CD, AUX (Amiga audio) & line 3.5mm jack inputs. 3.5mm jack output to speakers.
- Mixes CD & Amiga audio etc., automatically on bootup without invoking application programs.
- Extensive software support including Samplitude, Octamed SS & AHI drivers & PPC-based MPG3 audio playback

Desktop: £129.95 Tower : £149.95 Zorro: £189.95

Parallel & Serial expansion for Zorro-based systems

IOBLIX expandable Z2 I/O card for Tower Systems 2xS, 1xP - £89.95

OS 3.5 UPGRADE ... OS 3.5 UPGRADE

OS 3.5 is on track for delivery in a few months time, so now is the time to start preparing your A1200 to be OS 3.5-ready. We will be shipping OS 3.5 (estimated price £34.95) from the date of its official release. Why not place an advanced order to ensure you get your copy at the earliest opportunity?

Amiga Inc recommend the following configurations:

For 'acceptable' performance:		
'030 accelerator	ACC-030-40-1S	£59.95
Scandoubler/Flickerfixer	EZVGA range	from £48.95
Modem	MOD-56K 56K	£69.95
You will also need:		
3.1 ROMs	SYS-KS31-ROM	£29.95
. . . or SYS-KS31-MPUG (w/3.1 disks and MP s/w)		£49.95
To take full advantage of OS 3.5:		
'060 Accelerator	ACC-060-50	£267.95
16-bit sound card	ADPT-AUD-PL12-DT	£129.95
I/O Accelerator	INT-SER-PTJR	£39.95

The ideal way to update your Commodore A1200



3.1 Kickstart ROMs, Photogenics 1.2SE, 3.1 Workbench (6 disks), Personal Paint 6.4, Wordworth 4.1SE, Organiser 1.1, Turbocalc 3.5, Pinball Mania & Whizz, Datastore 1.1Workbench 3.1 manuals, Magic Pack Application s/w manuals . .all for just **£49.95!!**

MAGIC UPGRADE PACK

EZKey2

- Autodetects and remaps Amiga & PC keyboards
- Plugs directly into the ribbon cable slot on the A1200

EZKey2 alone - for A1200 only - just	**£28.95**
EZKey2 and Windows keyboard	**£38.95**
EZKey2, A4000 keyboard	**£58.95**

EZKeySE

- Separate models for Amiga & PC keyboards
- Amiga version & k/b detects all multi-key combinations

EZKey-SE/Amiga - for A1200 & A600 - just	**£18.95**
EZKey-SE/Amiga A4K keyboard	**£48.95**
EZKey-SE/PC - for A1200 & A600 - just	**£24.95**
EZKey-SE/PC and Windows keyboard	**£34.95**

The Eyetech Gold Collection

SIMPLY THE BEST SERIOUS SOFTWARE YOU CAN BUY FOR THE AMIGA!

A full catalogue/product listing will be sent to you FOC if you send a stamped addressed A4 envelope

Image FX4, Aladdin 4D Wildfire



Superlative graphics, animation and effects software for your Amiga from NOVA Design.

IMAGE FX4 - £149.95
IFX2⇨IFX4 u/g - £99.95
IFX3⇨IFX4 u/g - £74.95
Powerstation IFX Module - £74.95
ALADDIN 4D - £59.95 WILDFIRE - £99.95

Please state CDROM or Floppy disk

15% off with AF 128 voucher

Scala MM400



The best ever presentation and video editing software for the Amiga with extra backgrounds & fonts. Guaranteed to make MS PowerPoint users' jaws drop.

MM400 - £59.95 MM300⇨MM400u/g £39.95

UltraConv 4



The most comprehensive still image and animation conversion software available. Has over 130 built-in effects, batch conversion, QT AV builder w/audio, etc

UC4 - £39.95 UC4 bought with SQ4 £29.95

ScanQuix 4



The definitive Amiga scanner driver for most Epson HP, Artek, Mustek & Canon SCSI scanners & Epson parallel. Also ScanExpress 6000P via the IOBlix12P.

SQ4 - £59.95 SQ3⇨SQ4 u/g £29.95

PhotoScope



Software specially designed for the award-winning UMAX 610S, 1200S & 1220S SCSI 30-bit A4 flatbed scanners by the author of ScanQuix.

PHS- £59.95 PHS/ArtEfx/Umax Scner- £149.95

CamControl



Digital Camera serial interface control & download software for the Amiga for most popular Kodak, Fuji, Casio, Minolta, Mustek and Olympus digital cameras.

CamControl - £29.95

Samplitude



The definitive Amiga hard disk recording, sampling and FFT filtering package. Samplitude Opus allows virtual (non-destructive) projects of 16 tracks (4 in LE)

SampOpus - £149.95 SampOpus-LE - £49.95

Siamese RTG



The out-of-the-box Amiga-to-PC networking software which also allows you to use the PC's screen as a high res Amiga graphics card. 2.5 uses ethernet, 2.1 serial

SiSysRTG-2.1- £19.95 SiSysRTG-2.5- £89.95

MakeCD



The best CD-burning software for the Amiga, with extensive audio-CD support. For most SCSI & some ATAPI CDWriters/ReWriters. Bundled with EZWriter.

MCD3.x- TAO-Private - £38.95

Netconnect



The all-in-one internet package for the Amiga including 11 highly integrated programs covering all internet-related activities from email and Web to newsgroups.

NC2.x - £49.95 NC2.x & NET-ISP - £69.95

TurboPrint 7



The most comprehensive, fastest replacement system for your Amiga. Supports the latest printers from most main manufacturers. Colour correction, spooling etc

TB7.x - £38.95 TB6.x⇨TB7.x u/g £19.95

Workbench



Official Workbench disks for your Amiga. All packs include hard disk install software. WB3.1 & WB3.5 require 3.1 Kickstart ROMs (also available from us).

WB3.0 - £9.95 WB3.1 - £14.95 WB3.5 - £34.95(est)

EZ-IDE



The best replacement 4-device hard disk driver software available for a stock A1200/4000 which also supports ATAPI CDROM, CDWriters, LS120 & Zip drives.

EZIDE: £34.95 EZCD s/w⇨EZIDE u/g £14.95

WB2.x · WB3.x · Floppy disk
CDROM · PPC ready · AREXX enabled
Special bundle prices may apply - please ring
Upgrade/trade-in price available - please ring

Due to variations in exchange rates the prices of some products may change - up or down - from the prices shown. Please ring or check our website [www.eyetech.co.uk/MAIN/APRICE.HTM] for the latest prices before ordering.

Screen Play Previews

Paul Cavanagh can see the future and it's full of nasty things for you to kill, maim and generally blow up



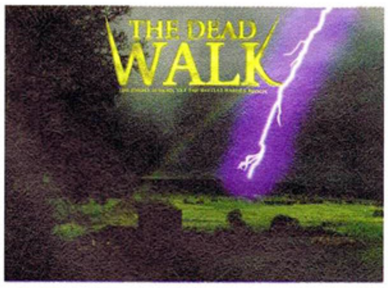
Isn't it strange how first impressions can be so deceptive? The software that's been reviewed in this issue's Screenplay is a good example. I couldn't wait to get my sticky little paws on *The Gremlin Collection*, but I ended up being more than a little disappointed. Conversely, I was singularly unimpressed when I first encountered *Imperator* and *Phoenix Fighters*, but both games turned out to be real corkers that have kept us entertained in the office for hours on end. So never judge a game by its blurb. Or something like that.

It's been another good month for games, and there'll be more next issue including *Starfighter*, *Foundation – The Director's Cut* and *Turbo Racer 3D*. Meanwhile, enjoy the new look Screenplay.

SCREENPLAY INDEX

The Dead Walk

Brains! Brains! Zombies, eh? Unsophisticated and not a little bit horrid, but the game playing public seem to love 'em. Just look at the success of the *Resident Evil* games on the PC and Playstation. Alpha Software realised this when they released *Zombie Massacre*, and now they're set to carry on the tradition with *The Dead Walk*. Set in an old mansion and the surrounding area, it seems to be an unashamed rip-off of *Resident Evil*, but who cares? As long as it delivers the quality that it is claiming on their website, it'll be worth waiting for. The screen shots only show some of the objects in the game, rather than how the finished product will look, but it's something to be going on with, at least. *The Dead Walk* will require at least an '030 running at 50MHz, preferably with a graphics card. There is no release date as yet.



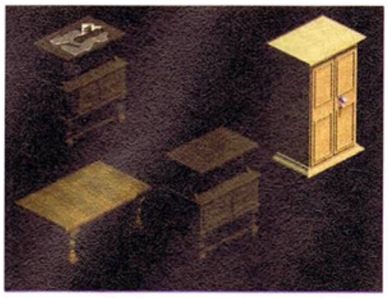
Set in an old mansion and the surrounding area, it seems to be an unashamed rip-off of Resident Evil, but who cares?

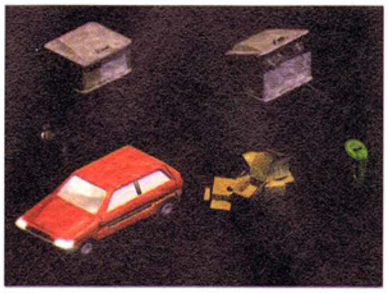


Three of the terrifying creatures from 'The Dead Walk' (eyes not complete!)

Don't expect too much glamour in The Dead Walk. That chap in the suit is probably as suave as it's going to get.







Maim & Mangle









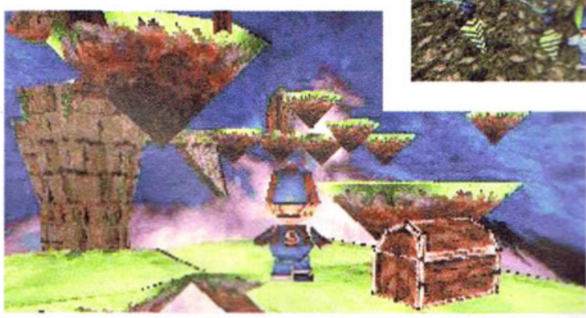
These screen shots are the most recent and show explosions for the first time.

World Foundry have released more details of their forthcoming real time strategy game *Maim & Mangle*, along with these new screen shots. The game will now only be able to run on machines equipped with a 3D graphics card. There will two versions, one of which will require at least an '060 and the other being a PPC version. There is also research currently underway for plans to port the game to the NG. Given the high spec required, we should be in for a treat with the game. Although firm details are sketchy at present, there will be an option for the player to open windows to display the viewpoint for up to three units, and the camera will follow the terrain height. It all sounds great, it's just a shame that it won't be available to most Amiga owners unless they fork out the necessary cash to upgrade their systems. Release date to be announced.

Tales From Heaven

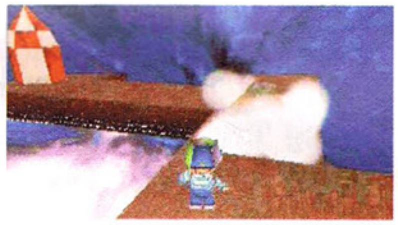


We last reported on this *Mario 64* clone way back in *AF*118. At that time, Darkage Software didn't know when it might be released, but now they're saying that September is the month to get all excited about. Personally, I doubt whether it'll be around for a while. Why? Well, for starters they're advertising on their website for someone to code the music for the game, and secondly Epic Marketing don't know when they might get a copy of the game to distribute it. Given the fact that it's the end of August as I write this, you can understand my scepticism. Let's hope it's a game worth waiting for – there aren't currently any 3D platformers out for the Amiga, so it will be a ground-breaking game (if only in the Amiga market). Be warned, though, it's not going to be huge – there are only going to be 12 levels. Despite that, I'm dying to have a go on it.



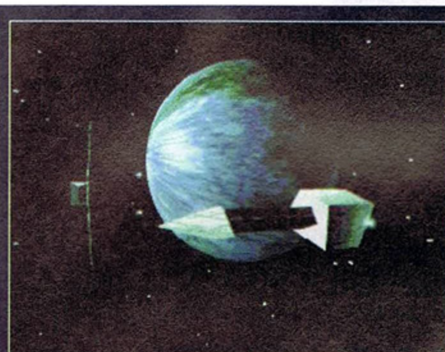






Look! It's a boing-ball tent!

Star Fighter - D'yammen's Reign



By the time you read this, Islona's Star Fighter will be available. It's a space combat game in the mould of *Wing Commander*, with some very impressive-sounding game features. For example, there are 110 missions where you can play the good guys, bad guys or a neutral bounty hunter who's only in it for the money. You can choose from eight different ships, play on training, three-mission sortie or a full campaign. Along with all this is an impressive looking 3D game engine. Expect a full review in the next issue.





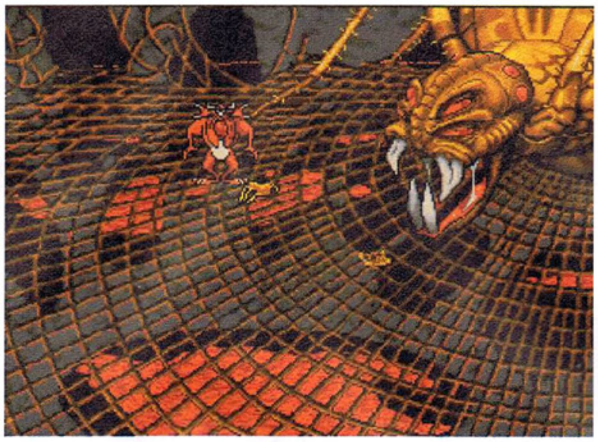


Full 3D blasting fun awaits in Star Fighter. Lots of options should mean that they'll be plenty of life in it.

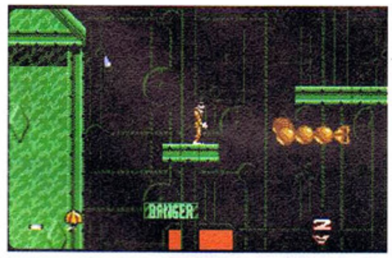
Gremlin Collection

Paul Cavanagh has seen compilations come and go, but it's fairly rare to find one that contains as many as 25 games. What a bargain! Or is it?

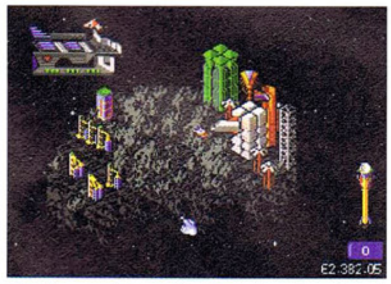
When I first came across *The Gremlin Collection*, it struck me as being a great bargain – after all 25 games for £30 has got to be good, hasn't it? And it would be good if you got 25 working games for your money. But what you actually get is a collection of games which are so old that most of them stubbornly refuse to work on a modern Amiga no matter how much you try and coax them into playing ball. There's a piece of software on the CD which tries to fool an A1200 into thinking it's actually an A500, but it doesn't seem to help many of the games work any better. So unless you've still got an old 1.3 machine knocking about in the loft, don't expect to be able to play all of the games.



Litil Divil – large, colourful graphics, some humour and quite good fun. This is a CD³² game, so you'll need a joypad.



Harlequin is a fairly average platformer with intensely irritating music.



K240: a pretty good resource management game set in space.

> **I am deeply unimpressed at how shoddy it looks for Islona to be using 'cracked' versions of some games on this CD**

One of the first things I noticed about the games was that many of them are 'cracked' versions. In other words, they've had their copy protection removed by teams of software pirates. Islona have been careful enough to include a disclaimer saying that they don't condone piracy in any way, but my view is that using these pirated versions is very unprofessional and gives out the wrong message to the software buying public. It wouldn't have done Islona's reputation any harm at all had they also taken the trouble to remove the foul language from the cracking teams' little messages at the front end of games. I am deeply unimpressed at how shoddy it looks for Islona to be using these versions.



)left) an example of the appalling graphics in the utterly dire Motor Massacre.



Plan 9 From Outer Space is a very average adventure. It's worth a look if you enjoyed the film, or Tim Burton's Ed Wood.

MEMORY LANE

But what about the games themselves? Well, there's nothing here that has really stood the test of time – there isn't a single game on the CD that makes it a compilation that can't be missed. The *Premier Manager* games are immensely popular so if football management is your ticket, then the compilation would



Combo Racer has an interesting two player option and a track editor, but it's very dated and not particularly good.



If you enjoy shoot-em-ups, Disposable Hero will keep you happy for a while. There have been plenty of better games in the genre for the Amiga, but it's still pretty good.

THOSE GAMES IN FULL

Here's a list of all the games on the CD with their original *AF* scores (if they were reviewed, that is). If you can't see a picture of the game on these pages, then I couldn't get it to work on our office A1200.

Artura	Litil Divil 70%	Suspicious Cargo 80%
Butcherhill	Motor Massacre	Switchblade 70%
BSS Jane Seymore 75%	Pegasus 61%	Switchblade 2 79%
Combo Racer 69%	Plan 9 From Outer Space 45%	Super Scramble Simulator
Dark Fusion	Premier Manager 58%	Techno Cop
Deflektor	Premier Manager 2 89%	Top Gear 2 55%
Disposable Hero 70%	Premier Manager 3 85%	Utopia 84%
FOFT 69%	Premier Manager Multi Editor	Vampires Empire
HATE	Shadow Fighter 89%	Venus Flytrap 79%
Harlequin 78%	Skidz 86%	Video Kid 60%
Impossamole 60%	Super Cars 86%	Zool 95%
K240 84%	Super Cars 2 80%	Zool2 93%

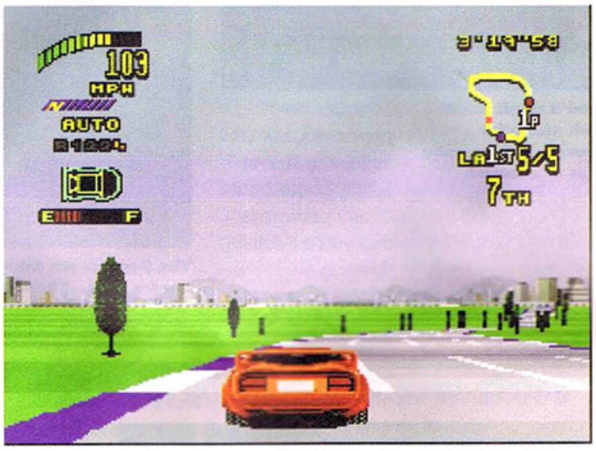




Switchblade (above) and Switchblade 2 (below) provide lots of platformy, shooty fun. Pretty damn addictive.



Video Kid is a curious combination of the Shoot 'em up and platform genres.



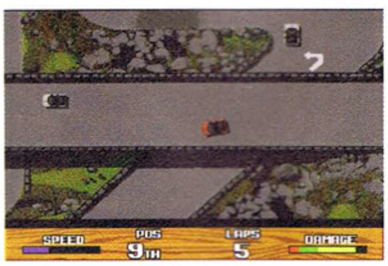
Top Gear 2 may have been good in its day, but it looks awful now, and should really just be left well alone.

be well worth looking at. Both *Zool* games are colourful and pacey platformers which can provide some fun, and the *Switchblade* games are strangely addictive. If you like point and click adventures, then you'll probably get along with *Plan 9 From Outer Space*. Other than those games though, you're looking at a collection of very average games, with a few really dire titles thrown in for good measure. If you have fond memories of some of these games and enjoy the odd stroll down memory lane, then this collection might make for a good buy. I'd be prone to more nostalgia if the *Lotus* games were here, or maybe *Soccer Kid*, but alas, no. On the whole, though, given that it's such a hassle to get most of the games working at all, and that there's nothing really fabulous here anyway, I'd advise you to seek out the individual titles you're interested in (which you'll probably find cheap second-hand) and leave this compilation well alone.





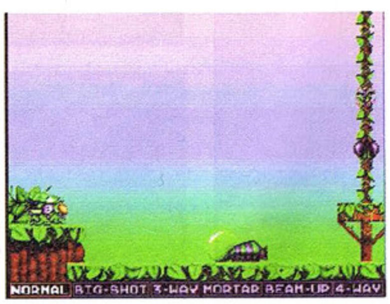
Zool (above) and Zool 2 (left) offer fast and furious platform action. Colourful graphics and good sound made these games winners.



Supercars 2 is a lot like Micro Machines, but not nearly as much fun. However, the two player mode is good.



All three Premier Manager games are included, along with an editor system. These were very popular games indeed.



Venus Flytrap is an interesting shoot-em-up with some good use of colour.

SUPPLIER: Epic Marketing
01793 490988
PRICE: £30
REQUIREMENTS: CD-ROM drive

Pros and Cons

- \+ Lots of games for £30
- \- Many of the games don't work on newer Amigas
- \- Lots of average and a few really terrible games
- \- Dodgy cracked versions of some games.

OVERALL VERDICT:
A disappointment. Try to get the few good games here separately.

36%

Imperator



Paul Cavanagh brings peace, civilisation and some pretty good plonk to the heathen masses

What have the Romans ever given us? Well, apart from the roads, the underground heating, the wine, etc. they provided us folks in Bath with a tourist industry and a World Heritage City (although the Celts and Georgians did their bit too). And they provided the inspiration for *Imperator*. The game is all about how the Romans got to clobber the rest of the then known world as they expanded their empire and brought their own form of civilisation along with them.

You begin the game with very limited resources, in the humble rank of tribune and with no provinces. In order to progress you must trade wine and wheat to make money. Making speeches to the senate or bribing senators will give you popularity which helps you gain promotion. Conquering provinces further improves your image in the senate, and the higher up the social scale you go, the more legions you are able to control. In addition, better ranks enable you to equip your legions with cavalry, archers and catapults.

> **The game is all about how the Romans got to clobber the rest of the then known world as they expanded their empire**

To begin with the game is pretty tough, as it takes a long time to make money. Without money you can't afford a decent army, so not only is it difficult to conquer new provinces, but you suffer the risk of being booted out of any provinces that you establish through a rebellion or an invasion. Luckily, the gods can help. There are four gods who can render assistance. You're most likely to need the help of Mercury first because, as the god of commerce, (I always thought he was the messenger of the gods) he'll treble your available finances if you invoke him. You can only invoke the gods once in a lifetime, so prudence is required. The other gods are: Mars, who can help you to win battles; Venus who can help you get on better with Cleopatra (more on her later); Neptune who can assist with managing fleets; and Jupiter who does all of the above in one fell swoop.

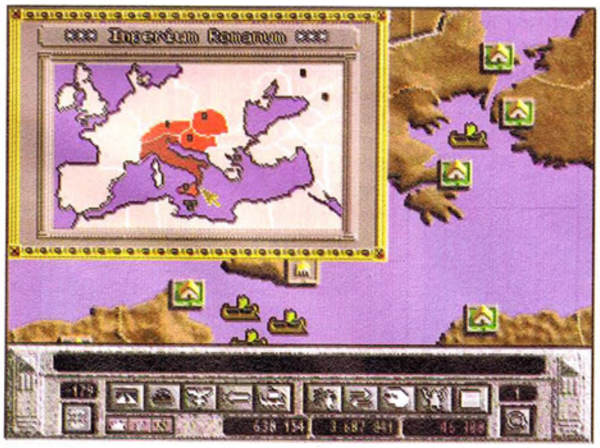


You'd think she'd ask nicely for money, but no – she has to demand.

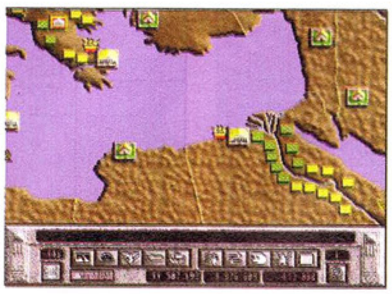


The Romans are taking a bit of a pasting from the barbarian hordes here. There's only one thing to do – run away! Run away!



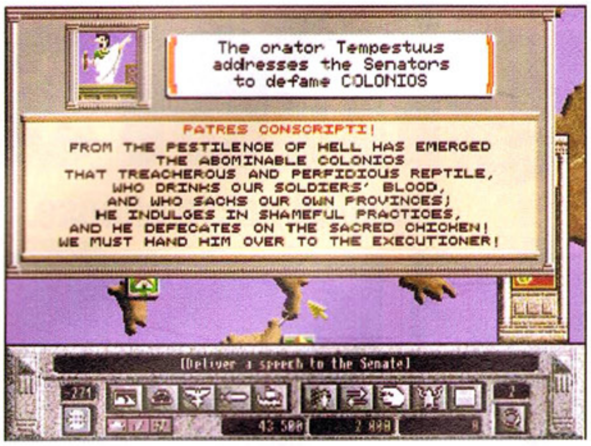


Every time you conquer a new province a map pops up to show you how far your empire has expanded.





(above) If you make enough money from wheat and wine you can eventually challenge the authority of Rome (main picture).



In the two player game you can pay the orator to say rude things about your opponent as well as pay you compliments.





(Left) You may have to bribe senators to gain support so that you can get promotion.

After a bit of wise investment in wine and wheat (and with a little help from Mercury) the pace of the game hots up as you can afford to raise legions and conquer new provinces. You can choose to command your legions yourself, or delegate to your tribunes.

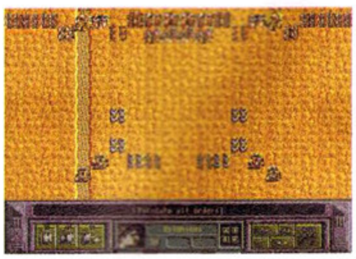
Tribunes are like generals who are in charge of individual legions and the more you pay them, the more ferocious your troops will be. The battle mode of the game is a bit fiddly for my liking and not terribly entertaining. All you get to do is arrange the positions that your troops start from, tell them which way to face and dictate where individual units should proceed to in the next turn. Once you click on the go button your troops start to do their thing, and will continue to do so until you click a mouse button. You can control the action on a turn by turn basis, which can be fun, if a little long-winded. On the whole, I've found it better to delegate to tribunes, so that I can get on with the business of building an empire.

EXPAND YOUR EMPIRE

Once you've got a few provinces under your belt the senate will reward you with promotion, giving you more scope to raise powerful armies and expand further. Provinces are really useful because you can plant wheat and vine in them and set the tax rate, so every year you can make money from each province. As soon as you conquer a province it's a good idea to hold games there to keep the people happy. If you neglect to entertain the masses they're likely to get fractious and you'll have a rebellion on your hands which costs troops, and popularity in the senate. Every year that passes sees an empire get bigger and bigger, just so long as you can keep the senate, the people and your accountant happy.

Expanding an empire into Egypt can be fairly difficult, and is always expensive. The Nile Valley is very fertile and can support a lot of vine and wheat, and Egypt is a useful province to control, given its position on the map. However, you can't just walk in and batter the Egyptians about until they give in; the only way to rule Egypt is to get in Cleopatra's good books. There's absolutely no point in talking to her at the start of the game, after all, she's a queen and isn't going to want to have anything to do with lowly Roman governors. Oh no, she likes her men rich and powerful does Cleo. In order to get her on side, you'll have to have a fairly big empire, a decent rank and simply oodles of cash. If she agrees to an alliance, you can buy cheap wheat from her and control the province, but don't expect a quiet life. If you want to stay friendly with her, you'll have to meet her demands, and it's amazing what a queen of Egypt expects of her friends. You can't just take her out for a posh meal, and a night at the local Coliseum is right out. No, she'll expect you to foot the bill for painting the Pyramids and all sorts of daft things that cost big bucks. I'm not sure if it's all worth it, but if you're after total world domination, you can't do it without her.

You can find yourself shouting "Wahey! I've just conquered Gaul!" and then sit staring at your shoes in an embarrassed way



Here's a battle just about to kick off. You can avoid the hassle and leave it to your tribunes if you like.

Imperator is a bit of an oddball game. There's very little about it that hasn't been done before, and done better elsewhere. The graphics are fairly plain, the playing area is small and there's hardly any animation, with few sound effects and no music. So that leaves us with gameplay, which, happily, is great. Once I got past the initial stages of the game and started to pacify a few provinces, I was hooked. It's hard to define what it is about *Imperator* that makes it so playable – maybe it's seeing an empire expanding that makes me power-hungry, maybe it's watching my popularity in the senate grow while I creep ever closer to promotion or maybe it's my avarice taking over as my finances start to boom after hours of careful husbandry. It's probably all of the above. The fact that a game takes hours to play means that you become immersed, and you really start to care what happens. There's a two player option in the game (which isn't really very different to the one player game) and while Colin and I were playing it Ben had to tell us to pipe down a bit on more than one occasion. It's so easy to become enthusiastic that you can find yourself shouting "Wahey! I've just conquered Gaul!", and then sit staring at your shoes in an embarrassed way as everyone stops working to look at the raving madman in the corner.

This is by no means a perfect game, and its appeal is fairly limited, even with three skill levels there's only so much you can achieve – after all, the known world wasn't very big in those days. However, it's certainly a game worth owning, and if you liked *Sim City* or *Civilisation*, although you may fifd this game lacking in places, you'll love it all the same.



Invoking the Gods makes the world go all funny.

AVAILABLE FROM: Epic Marketing 08700 110013
PRICE: £14.99
REQUIREMENTS: 1.5MB RAM, Hard Disk.

Pros and Cons

- − Poor sound and graphics
- − A bit limited
- + Very absorbing
- + Great fun.

Overall Verdict:
Not the most accomplished game of its ilk, but fun nevertheless.

73%

Phoenix Fighters

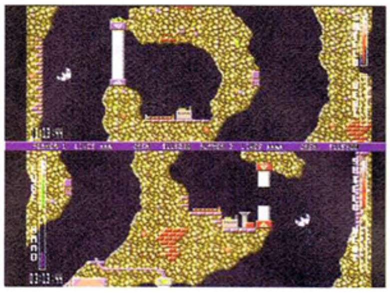
Choose a mission, choose a dog fight. Paul Cavanagh decided not to choose. He went kamikaze...

Gravity games have never been my forte. I always thought they were too fiddly and too difficult. So when I first loaded up *Phoenix Fighters* I thought that the game would be a bit of a bind to review. But I was wrong – at least I was wrong about this particular game – because, just like all the other games of this ilk, it is fiddly and difficult. What's different about this game is that perseverance reaps rewards. More than that, this isn't just one game, it's a collection of many different gravity games, all of which are fun and compelling to play.

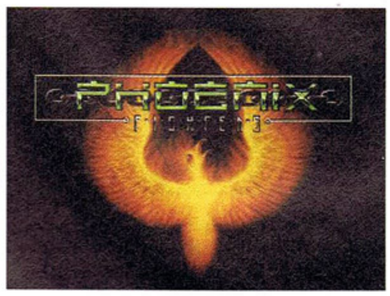
Narrow passages with tight corners test your piloting skills not to mention guns, magnets, doors and all sorts of other obstacles

GAMES GALORE

With *Phoenix Fighters* you can choose between one and two player missions, races and two player dog fights, all of which play differently. In two player missions, for example, you must co-operate with whoever you're playing with, whereas in all of the other two player options you're in direct competition. The variety in gaming styles is a real boon to the game because if you get stuck on a mission, or you just get bored with that style of play, you can choose a race and come back to the mission later on.



Here's a two player mission – tricky stuff indeed. Not only do you have to work together, but you're up against the clock too.



LEARNING TO FLY

It takes a while to get the hang of flying ships about in *Phoenix Flyer*. For those of you who may be unfamiliar with this genre, the idea is that you have a ship with one thruster. To manoeuvre your ship you must rotate to face in the direction that you wish to fly and activate your thrusters. It's not as easy as it sounds because your ship is affected by gravity and so will start to fall down when the thrusters are disengaged, no matter what direction the ship is pointing in. What's more, the ship's momentum can cause problems – if you've given it too much welly on the thruster you can find yourself heading straight for a wall and will need to spin your ship around and thrust the other way. It really is a skill that takes some time to acquire, and minute adjustments are often necessary. In *Phoenix Fighter* there are lots of narrow passages with tight corners to test your piloting skills, not to mention gun emplacements, magnets, doors and all sorts of other obstacles.

STRATEGIC UPGRADES

In the mission games you have to achieve certain objectives within a very demanding time limit. It's rarely made obvious how to achieve objectives, so after a while you begin to suspect that you'll have to replay a level a fair few times before you even begin to get anywhere. Although this can be fairly frustrating, it's all part of the game's charm. It doesn't take long before you





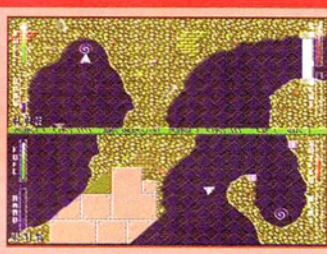
Jumping between games and missions stops you getting bored with one style of play.

GAMES WITHIN A GAME



Mission

Mission games are challenging and very addictive. At the start you are told what you are supposed to be doing, but it still takes a while to work out how to do it. Two player missions demand that players co-operate.



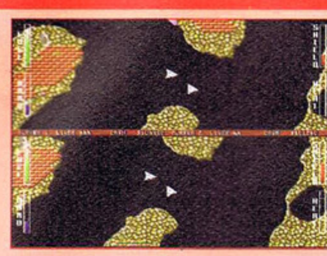
Gate race

In gate races you must pilot your ship as fast as possible around a course, going through numbered gates in the correct order. In the one player version you try to beat high scores, whereas in the two player version, first past the post wins.



Gem race

Very similar to a gate race, but you have to collect or shoot gems along the way. As soon as you collect a gem, another one appears a bit further on, showing you the way around the course. That little bit harder than a gate race.



Dog fight

Dog fights are two-player only games and a heck of a lot of fun. The idea is simple, seek out and destroy your opponent. You are able to customise your ship, so you can employ all sorts of devious tactics. There are 40 different courses to play on.

SERIOUS HARDWARE

You can tool up your ship with a variety of different weapons. Different ships have different payloads, you'll always be able to carry at least two weapons, but no more than four.

Spacro Gun
This pea-shooter comes as standard with most ships. Sell it immediately.

Thomson Gun
Like the Spacro Gun but a bit more powerful.

Threeway Gun
Does what you'd think. A pretty handy weapon to have.

Shock Gun
Shoots very powerful explosives. Very effective, but can be dangerous to use.

Protorox Gun
Shoots 3 bullets side by side in the same direction. One of my favourites.

Fusion Bomb
Boom! Bomb everything! I like these a lot.

Viper Cannon
Rapid fire weapon with powerful single shots.

Shredder Gun
A bit like a mounted machine gun. Good at close-quarters.

Mass Gun
A weird one, this. Doesn't do much damage, but increases the target's mass.

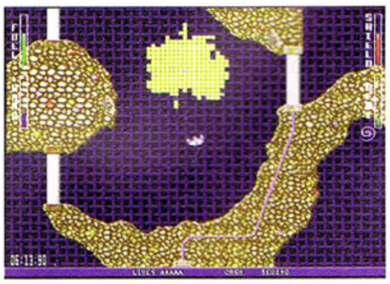
Nova Gun
Shoots in eight directions, all around your ship. It's a shame it overheats so quickly.

Dual Gun
Shoots from the front and rear of your ship at the same time.

Rotate Gun
This gun doesn't hurt much, but spins your opponent around when it hits them.

Pulse Gun
The same sort of thing as the Rotate Gun, but this one forces your opponent backwards.

Devoy Gun
Combines the effects of the Rotate Gun and the Pulse Gun.



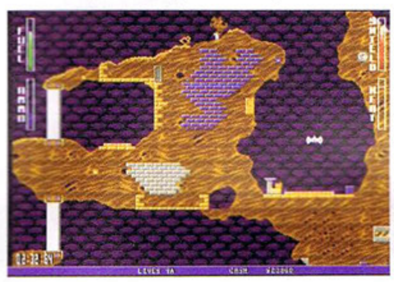
This big blobby thing is a virus. It keeps growing until you shoot the nucleus in the centre.

start to develop a grim determination to get through a level no matter what, and the 'just-one-more-go' syndrome begins to kick in. The missions really are tough – most of the time you can only achieve objectives by shooting tiny little buttons which can be very difficult to find in the first place, and positioned so that shooting them is a precision task. There is, however, an alternative to the precision method – be a complete loon and fly straight at them, hoping that the explosion resulting from your ship's untimely end will activate the button.

CASH YOUR SHIPS IN

You can get away with such impetuous acts in *Phoenix Fighters* because of the option to buy extra ships. Each time you finish a mission, you are rewarded with cash, and during the game you can pick up gems which further boost your finances. At any point during the game you can trade some of your cash for weapons, equipment and extra ships. As well as further adding to the variety of the game, this also adds a strategic element. For example, if you're facing a particularly nasty gun emplacement, you could buy a really cheap ship and employ the kamikaze technique. Or, in a two player dog fight, you could go for the buy-bombs-and-stay-above-your-enemy technique, or you could go for the buy-a-three-way-gun-and-bounce-bullets-off-walls technique. So not only do you have plenty of different game types, but you can employ various different strategies in each of them. That's what makes this game really stand out from the rest of the crowd, and part of what makes it so compelling.

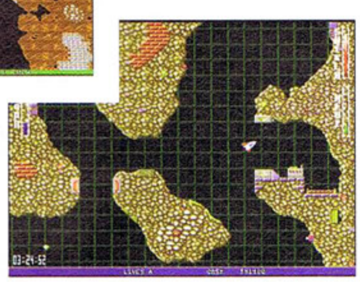
The gate and gem race games are worthy additions to *Phoenix Fighters*, not only because they're great to play (trust me, we've had some serious sessions in the office), but because they offer great scope for getting used to flying the ships. There are 20 courses for each type of race, and they get progressively harder. It's a good idea to stay on one course for a while, trying to beat your highest time on every go, and then move up to the next one. Keep it up and before long you'll be zipping about with confidence.



(Right) Here's a different type of ship. This one's nippy and very manoeuverable.







(Above) Get some cash, get a cheap ship then go blast those buttons.



The graphics and sound in this game are functional, and that's not a criticism. They're not fancy, or flash. The sound effects don't offer new levels of realism. But they do what they're supposed to do: the graphics are varied and quite attractive, and some of the sound effects are nice. My point is that the game remains well presented without being too swish, and that what you get for your money is superb gameplay – you really don't need anything else.

SUPPLIED BY: Alive Mediasoft
01623 467579
PRICE: £15
REQUIREMENTS: CD-ROM drive

Pros and Cons

- A bit difficult
+ Plenty of different game types
+ Lots of options for upgrading ships
+ Incredibly addictive

OVERALL VERDICT:
A game that you'll keep going back to. It's great value, too.

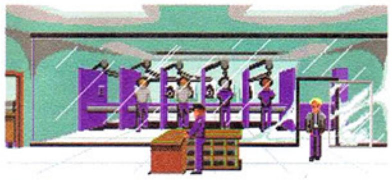
86%

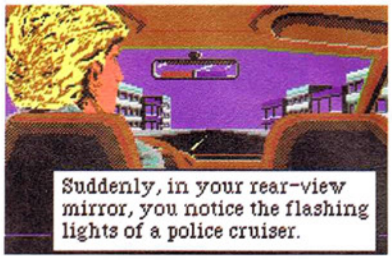
GAMEBUSTERS!

If you've been having problems with your favourite games Paul Cavanagh is here to help with his selection of tips

Sierra Solutions

A. Padgett from Bradford has written in with some questions about some old Sierra point and click adventures, which I'm only too happy to help with:

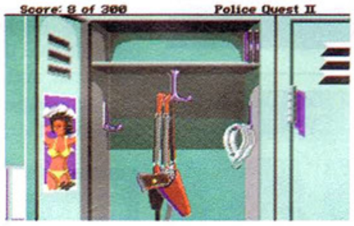




They may be pretty ancient games, but they're still very playable, and a bit of a challenge.

Q In *Police Quest* I am stuck with Marie in the Hotel, I have to get rid of her and send her in to the station, but I can't make her go.

A *Pay the waiter for the drinks and Marie will leave and then come back again. Go to the bar and give the bartender money, go to the elevator in the lobby and press two. When the lift stops, get out and walk down then to your right until you reach room 204. Unlock the door and say "yes" twice. Go to the telephone on the night stand and phone Lt Morgan on 555-6674 and say "Sonny Bonds". Use the telephone again, this time dialling 411 and ask for the Lytton Cab Company's phone number. Dial the cab company on 555-9222 and say "Hotel Delphoria". Marie should now leave you.*



No policeman's locker would be complete without a slightly rude picture.

Q In *Police Quest 2* I am at the river trying to arrest Jessie Bains, but he just keeps killing me.

A *You may have to go quite a way back in the game to solve this one. In the shooting range you must get points for hitting the target (keep adjusting your sights until you get it right). If you don't get your shooting right, Jessie will kill you every time. If you do it right, you will shoot him in the leg and he will run off.*

Q In *Police Quest 3* I'm on day five and have checked the locations of the previous murders on the computer. My partner Morales has asked me about the map but I can't find the map and seem to be stuck.



A *The map you need is on the computer in the tools menu. If you 'use' it to plot the locations of the previous murders you will soon start to get somewhere.*

Q I am also stuck in the whale's stomach in *Kings Quest 4*.

A *Go to the left side of the whale's tongue and climb diagonally toward the centre of the tongue. When you are standing close to the teeth, a little to the right of the tongue's centre, tickle the whale's uvula with the peacock feather. The whale will sneeze you out.*

Q Also in *King's Quest 4*, is there any way to get through the cave without always being killed by trolls?

A *Just save your game often. Also, you should head south for as far as you can go (you may have to veer east a little bit too).*

I hope that helps you A (I don't know what the A stands for, or even if you're a Mr, Miss, Ms, Dr or Sir, so I'll just call you A). Don't hesitate to write with all of your game problems, or suggestions for further pages.

Napalm Codes

Napalm is a fantastic game, but it is just a teeny bit hard. Hopefully these cheats will help.

Press T (for multiplayer Text option), then type in:
1GODNESS – add money
2DECADES – set techlevel to maximum regardless of the mission
3ABLAZEW – force Mission successful
4LOOSING – force Mission failed
5TICKING – add some time in time-limited missions

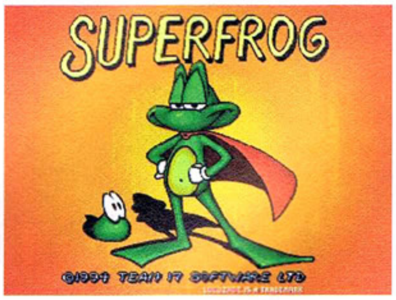






These cheats should make it easier to blow up everything that moves, or stays still for that matter.

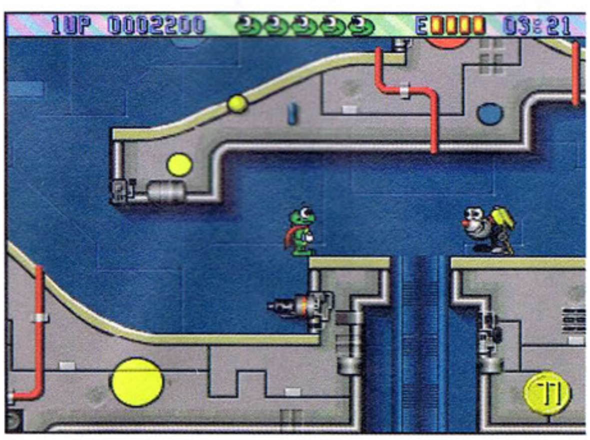
Superfrog Level Codes



I've hardly stopped playing *Superfrog* since I reviewed it in the last issue, and I've managed to get all these level codes. If, like me, you went to a back issue of *AF* to get the codes, you'd be disappointed. For some reason the codes are different, so I've had to do it the hard way. I had fun doing it, mind. However, you will note that there are some codes missing. This is because I didn't win on the fruit machine for a couple of levels, and I'm still stuck on world 5, level 4. If you've managed it, write in with the codes, and we'll print them at a later date.

CODE	WORLD	LEVEL
742891	1	2
256652	1	3
100101	1	4
230272	2	1
167892	2	2
523924	2	3
324705	2	4
174170	3	1
099610	3	2
261057	3	3
054076	3	4
612714	4	1
090210	4	2
149632	4	3
014400	4	4
940317	5	1
470914	5	2
490902	5	3
830521	6	1
680518	6	2
711222	6	3
720223	6	4

Below is world 6, level 4, and it's really nasty. So if you've cracked it and have the last level code, could you please post it in?



Zool & Zool 2 Cheats

If you've got the *Gremlin Collection*, you might appreciate these cheats and codes.



ZOOL

Type GOLDFISH on the title screen to activate the cheat mode, then use the following keys during the game:

F1 to F6 to skip worlds
F7 Gives you one life on the shoot-em-up level
F8 to F10 For a normal game with no restart points
1 Invincibility
2 Skip levels
3 Jumps to the same level on the next world
4 Suicide
5 Warp to level 6.1



Zool 2: Colourful, fast, zany and a lot easier with some cheats.



ZOOL 2

On the intro screen which says 'PRESS FIRE FOR OPTIONS' type in the following:

CREAMOLA gives you ten lives
VISION gives you twenty lives
KICKASS gives your re-usable smart bombs
NAPOLEAN gives you a bonus level every stage
ALCENTO increases percentage to 99%
OLDENEMY stops the clock
TOUGHGUY gives you invincibility (but not on electric and spiked walls)
SESAME Start on level one
RONSON Start on level two
FUNKYTUT Start on level three
HISSTERIA Start on level four
MARROBONE Stops the ball on the bonus stage
BUMBLEBEE Activates the skip stage cheat, just press return and you'll skip a stage.



SEND US YOUR TIPS & QUERIES!



If you've got some hints, cheats, tips or general good advice on any Amiga games – especially some of the newer ones like *Hexen*, *Heretic* and *Quake*, or if you've got a query about a game, give us a brief explanation of the game, where you're stuck, then drop us a line and we might be able to answer it in Helping Hands.

Name of Game(s): ....

Point where I'm stuck: ....

....

....

....

Send all tips and questions to:
HELPING HANDS • Amiga Format • 30 Monmouth Street • Bath • BA1 2BW

It's those Reader Games

Our readers have sent in a good selection of different game styles this month, and Paul Cavanagh likes that

AFCD45:-ReaderStuff-/-ReaderGames-

ON THIS ISSUE'S CD

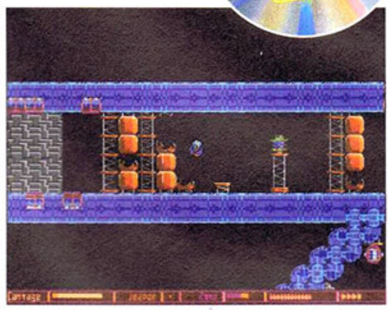
Retro

Sponsored by Amiga £50 WINNER!

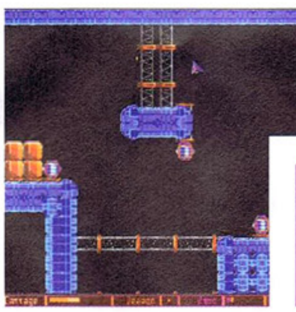
Still wondering what all this gravity games business is about? Then load up Stephen Strickland's excellent *Retro*. It's a fine example of the genre and will give you a good feel for what *Phoenix Fighters* is all about. OK, it's not as slick and fast, but it's still pretty damn good. Collision detection is really precise, the levels are well designed and the game presents a challenge. There are six ships available to buy, three types of weapon and 22 levels, so there's plenty there to keep you going.

If I had to fault the game I'd say that it's a bit too hard to earn money as you don't get a lot for blowing up the enemy but you do have to use up expensive weaponry in the process. However, there are weapon pick ups dotted about and if the worst comes to the worst you could always cheat. I have got one other very minor gripe – there's no loading screen, so every time the game is loading, you briefly get thrown back to the Workbench screen. This isn't a major problem, but when it first happened I thought the game had crashed, so now you know not to worry when it happens.

Stephen would have deserved the £50 prize for the game alone but, as an added bonus, he's even thrown in a level editor. Brilliant.







Retro is a fine example of the gravity game genre.



AUTHOR: Stephen Strickland
LANGUAGE: Blitz Basic 2.1
VERDICT: A very accomplished game which is extremely playable.

READER WARRANT

When you're sending in your submissions make sure you also give us:

1. An address where you can be contacted.
2. Details of the language used to create the game.
3. A recent photo of yourself.

The address to send your stuff into is:
READER GAMES • AMIGA FORMAT • 30 MONMOUTH STREET • BATH • BA1 2BW

Everything included on the AFCD must have a reader warrant with it. Just cut it out off this page, sign it and send it in to us with your game and a recent photograph of yourself. A last reminder: if you don't include this warrant we simply won't be able to put your game on the CD – that means you won't be able to have it judged by other readers.

In respect of all material which forms my reader contribution to Future Publishing's Amiga Format, I hereby warrant that:-

1. The material is original and does not infringe any other material or rights;
2. The material does not contain any material which is defamatory, obscene or indecent and is exempt from classification under the Video Recordings Act 1984;
3. That there are no legal claims against the material provided;
4. That I have full power and authority to provide this material to Future Publishing.

Signature: ______________________________

Triplex

Here's a tricky little puzzle game that was sent in by Roger Buckley.



The idea is simple – there's a matrix of dice faces, and you get to select one line of dice each time that you take a turn. The line that you select will increase the value of each die by one, unless it's a six in which case it will become a one. The idea is to create a line of three dice faces with the same value in any direction. What makes it difficult is that you score for every line of three showing (not just the ones that you've changed) so it's important to try and retain as many lines as possible on each turn. This is a four player game and the computer can play any player, or all four if you like.





Choosing the right line to change is a tricky business.

AUTHOR: Roger Buckley
LANGUAGE: Amos Pro
VERDICT: A tricky little puzzle game that makes my head (not to mention my eyes) hurt.

STSCCHQ Turbo

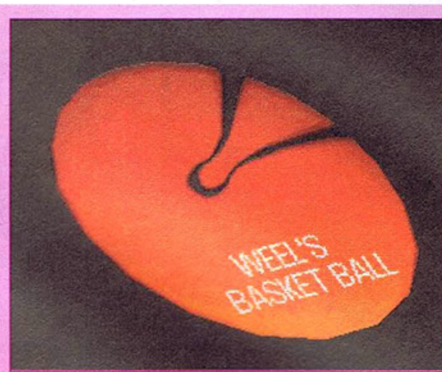
The full name of this game is *Super Tactical Strike Command and Commando's Head Quarters Turbo*, but we couldn't quite squeeze that into the top of the page. The name is probably a giveaway to the fact that this game doesn't take itself very seriously. In fact it's downright silly. Apparently it's a "big name Hollywood avoid-'em-up". The big Hollywood names being Weel Smith and Bruce Weelis. Bruce Weelis plays the good guy, and the idea is to avoid contact with everything that moves. If you stay alive long enough, you'll progress to the next level where you'll find more obstacles to avoid. It's very simple, very silly and worth sticking with until the end as the final game sequence really is funny – it had all the office staff in stitches. Apparently this game took about a year to make, but the guys involved couldn't be bothered with it most of the time. So, Maggot Design, thanks for making us laugh and let us have anything else you do as soon as you complete it!







Avoid everything! And keep avoiding it until you finish the level. It's that simple.



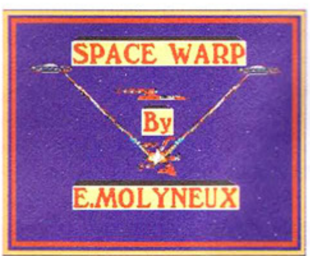


Weel Smith. He's such a bad lad. Well he is in this game anyway.

AUTHOR: Maggot Design. The only name we've got is Bob Davis.
LANGUAGE: Not specified.
VERDICT: OK, it's very basic and very short, but it's funny and it doesn't crash. We all like it.

Space Warp

This shoot-'em-up was sent in to us by Old Wrinkly aka Eric Molyneux. He's 70 years old, has been programming with Amos for about ten years and has written a utility that is in the Public Domain called Hotspot Setter. Eric suggests that we should have a competition to find the oldest Amiga programmer with an electronic Zimmer frame as a prize. So if you're a senior citizen with a game, or indeed if you know where we can get hold of supercharged Zimmer frames then get in touch.



As far as *Space Warp* goes, well, erm, it works. It would have been nice if collision with the alien ships (other than the flying saucers) actually did something, and different levels would have been nice. There's a good framework here, the game engine works fairly well and if Eric put some thought and time into it, I'm sure he could come up with a decent *Defender* clone – it only needs a few things added like smart-bombs, teleport facility and a finite ammount of aliens to destroy on each level. Give it a go Eric!



These flying saucers don't shoot you, just don't touch them.



A few less lives to start with might have been better.



AUTHOR: Eric Molyneux
LANGUAGE: Amos
VERDICT: A good basis for a Defender clone

SEND US YOUR GAMES

We didn't have any reader games last issue because they've been so thin on the ground lately. So if you've got any games you've written – do something about it! Send them into us and you might just win £50. So send your reader games to:

Reader Games
Amiga Format
30 Monmouth Street
Bath BA1 2BW.



PD Select

Discover what others have created for your pleasure with Richard Drummond's guide to the latest shareware and freeware

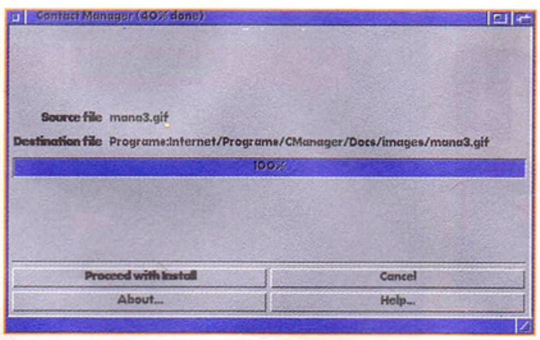
InstallerNG 1.0 pre-release

Back in *AF126* I took a look at, as it was called at the time, *Savage Installer*. This was an early release by Jens Tröger's of his installer clone. Of the many improvements he has made since then, one of the most sensible was the change of name. How could anyone take software with the appellation 'Savage' seriously?

The predecessors to *InstallerNG* had MUI-based interfaces, but this latest release has a choice: either MUI or a custom-written BOOPSI system. The latter may be preferable for efficiency, but it lacks the good looks and handy features that one gets used to with MUI. It's still a tad glitchy, too; for example it opens all its windows in a zoomed state by default.

As I mentioned in my previous review, the problem with producing an installer clone is that the original does not enforce the language syntax particularly rigidly. Scripts can contain errors which the Commodore *Installer* will happily ignore. *InstallerNG* contains various options to force it comply to the original's laxness. However, it is still prone to indigestion when comes to swallowing a large percentage of the scripts out there. Generally, when it reports an error during interpretation, you can just click on 'continue' and it will carry on. But it makes me distrust the package. I keep thinking, what if it goes wrong. What essential files will it overwrite?

This is a shame, since it features some great additions over the original, including the ability to stop scripts modifying your startup-sequence or over-writing systems files; it can automatically create uninstall scripts which can then be executed to remove software from your system; and it allows you to move backwards during the options part of a script. This last feature is great. With the original installer the only way you could change your mind was by aborting the installation and trying again. However, unless the reliability of *InstallerNG* can be improved, it will not become an effective replacement for the standard installer.



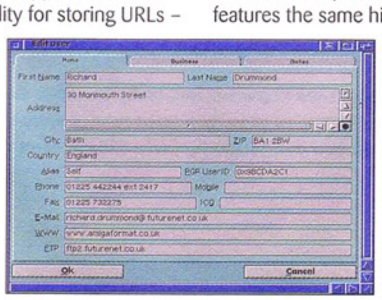
InstallerNG's new BOOPSI interface looks familiar.

BY: Jens Tröger
WARE: Freeware
FROM AMINET: util/sys/InstallerNG.lha
SIZE: 240K

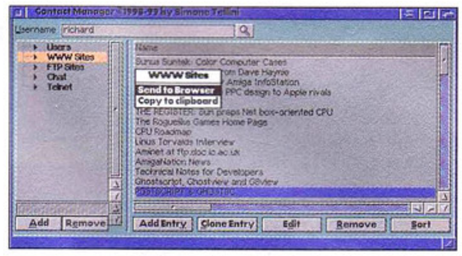
Contact Manager 1.5

The Amiga is blessed with some of best Internet software for any platform. Although the huge variety of such software can create its own problems. For instance, most net applications have some sort of address book facility for storing URLs – whether they are email addresses, websites, IRC channels or whatever. Typically, there is a lot of duplication: each program has its own address book with some of the same data. Wouldn't it be great then to have one global address book facility that you could share between all your software? Well, now you can with *Contact Manager*.

Contact Manager was first shipped with the *NetConnect2* package. As with all Vapor's software it features the same high production standards, the same well laid out MUI-based interface and the same in-depth documentation. This version will no doubt be bundled as part of *NC3*, but it is also available separately as shareware for the reasonable fee of £10.



Contact Manager is handier than a Filofax.



It's simple to interface CM with a browser.

Contact Manager stores four types of record: people, websites, FTP sites and IRC servers. Each personal contact can have a multitude of specified data including name, address, email, website, phone and fax numbers and even separate home and work details. Making use of the stored data is a simple matter of popping up a context-sensitive menu with the right mouse button. Depending on the entry you can send an email to your mail package, web address to your browser, or dial a phone number (if you have a modem, that is). Communication with external software is all conducted with user-definable ARexx scripts so modification to suit your particular set up is easy.

One of *CM*'s greatest features is that it can easily be integrated with other software. The bulk of its functionality is implemented as a MUI custom class which authors can build into their programs. Have a look at the *Voyager 3* preview for an example of this.

This release of *Contact Manager* is not without some defects. The preference settings do not seem to take effect when you save changes; annoyingly, you have to quit and restart the program. The import commands are not particularly useful either. In particular, with *YAM* it completely ignores some fields of the address book and mangles some others. This rather negates the usefulness of *CM*'s ability to automatically update its contents whenever modifications are made to a particular external address book.

Still, *Contact Manager*, is well thought out and a well executed concept. I just wish that more application writers would take advantage of its features. Get the hint, Marcel?

BY: Simone Tellini
WARE: Shareware
FROM AMINET: comm/misc/CManager.lha
SIZE: 498K
REQUIRES: MUI

Pegase 1.7

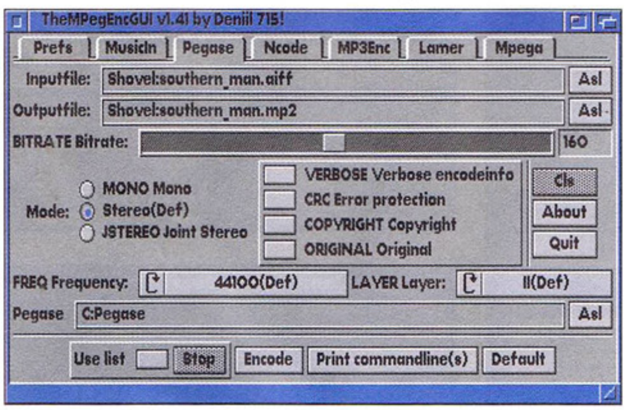
Unless you are a complete luddite and still think vinyl is the best medium for storing music, then you've probably heard of MPEG. MPEG is a compression method for streaming digital video and audio. The audio part of the standard can be used separately from the video part and has become a popular format for music on the Internet.

MPEG audio uses so-called psycho-acoustic modelling. It takes advantage of the fact that there are certain sounds and combinations of sounds which your ear cannot here and so removes them. Several different MPEG audio algorithms exist: layer I, layer 2 and layer 3. They differ in the degree of compression they can perform and the quality of the resultant sound. Use of the MPEG layer 3 algorithm requires paying a license fee, but the others can be used freely.

Pegase is a fast MPEG encoder for the Amiga and due to the licensing issues described above only supports layers 1 and 2. It comes in a range of flavours for 68K CPUs and for the PPC (under WarpOS). It is operated only via the command line, but various other programmers have created graphical interfaces for the program, (such as *TheMpegEncGUI*). It can handle AIFF, MAUD, WAV, CDDA (with both Intel and Motorola byte order) and raw audio formats as input and supports encoding of multiple files. This means you can supply it with a list of samples and leave it to chug away by itself while you go and do something more interesting.

The author of *Pegase* claims that it can compress an audio stream faster than other software encoders for the Amiga and still retain equal playback quality. With my 060/66 machine it takes just a bit longer than twice the duration of the sample to encode normal CD audio tracks. Playback through the mpega.library system and my 16-bit soundcard yields an audio track that is not discernible from the original even when played at low quality. This is just as well, since full quality playback leaves virtually no CPU time left for anything else. Dropping the frequency of the sample produces a notably inferior sample, though.

Pegase performs what is expected of it faultlessly. What the Amiga really needs to be able to handle MPEG streams adequately is some dedicated hardware – unless you have a PowerPC co-processor, that is.



Using Pegase is a lot simpler with a graphical interface such as TheMpegEncGui.

BY: Didier Levet
WARE: Shareware
FROM AMINET: mus/misc/Pegase.lha
SIZE: 208K

ABackUp 5.22

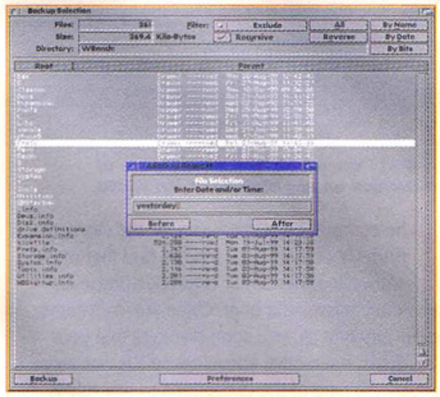
Some things in life are inevitable: death, taxes and having to back-up your hard disk. Thankfully, the last of these can be made more bearable with some good software, like Denis Gounelle's *ABackUp*.

ABackUp was originally a shareware release, but this new version is free. Whether this is because Denis is leaving the platform, has suddenly become more altruistic, or because too few people registered his program to make it worthwhile, who knows? Anyway, version 5.22 contains no major changes, only a few bug fixes.

For those who have not come across this package before, *ABackUp* is probably the most powerful of this type of software for the Amiga. It features a flexible and yet easy-to-use Intuition GUI, but can also be controlled from a shell. It offers a batch mode which can automate things for you: for instance, you could set up your machine to automatically back-up any changed files overnight.

It supports backing-up to files or volumes. Storing to volumes is achieved with a special disk format and can be used transparently with floppies (including high density disks) and removable media such as Zips, LS120s, etc. Stored data is compressed with an internal cruncher by default, but it also supports any of the packers available via xpk.library. You can also select external tools to do the job.





ABackup can take the drudgery out of backing-up your hard disk.

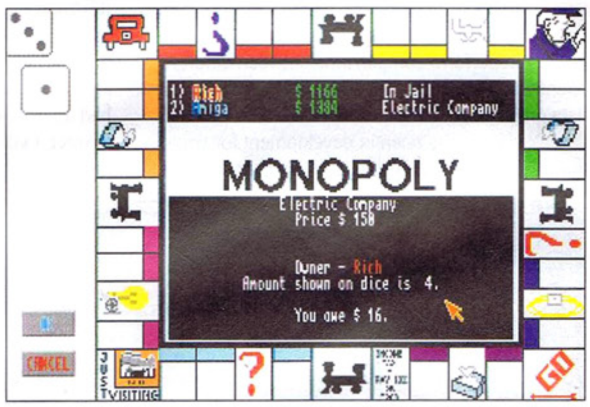
I find it difficult to fault *ABackUp*: it is an accomplished and mature piece of software. If I were really picky I would complain that the GUI is font-adaptive but not resizable and that the documentation is imperfectly translated from the French. Other than that, it's excellent.

BY: Denis Gounelle
WARE: Freeware
FROM AMINET: disk/bakup/abackup.lha
SIZE: 314K

AMonopoly 1.7

Software writers have been creating computer versions of board games for decades. One of their favourite victims is Monopoly, the game that brings out the rampant capitalist in the most placid of humans. *AMonopoly* is – surprise, surprise – another attempt to produce an Amiga version.

AMonopoly was written with AMOS Pro. Before you quite-deservedly cringe and turn the page, let me tell you that it's really not all that bad. So, there's all the usual AMOS problems like not being able to access Workbench while the game is running and not being able to choose a screenmode for the program to run in; but the graphics are colourful, albeit a bit too small.



AMonopoly is a good way to make enemies of your friends.

The control method is rather awkward, using a combination of mouse clicks and the keyboard and it is realized using AMOS Pro's pathetic emulation of Intuition's menus and gadgets but the game is highly configurable. You can tweak the rules to your liking and even play on a choice of boards including British, American, German and even Star Wars versions. (Monopoly in Star Wars? What a bizarre notion!)

The only reason I can see for playing Monopoly on a computer is when you have no corporeal players to challenge. Unfortunately, the computer controlled opponents generated by *AMonopoly* are far too predictable and far too easily beaten for my liking. The game offers two intelligence levels, but these would be better called dumb and dumber.

Still, *AMonopoly* plays a passable game and would make a refreshing change from *FreeCell* for whiling away those empty moments.

Continued overleaf ➡

BY: Al Metz
WARE: Freeware
FROM: Classic Amiga
DISKS: 1
PRICE: £1 (+50 P&P)

GeoWorld Update 9



GeoWorld can supply you with a mine of information on any country of the world.

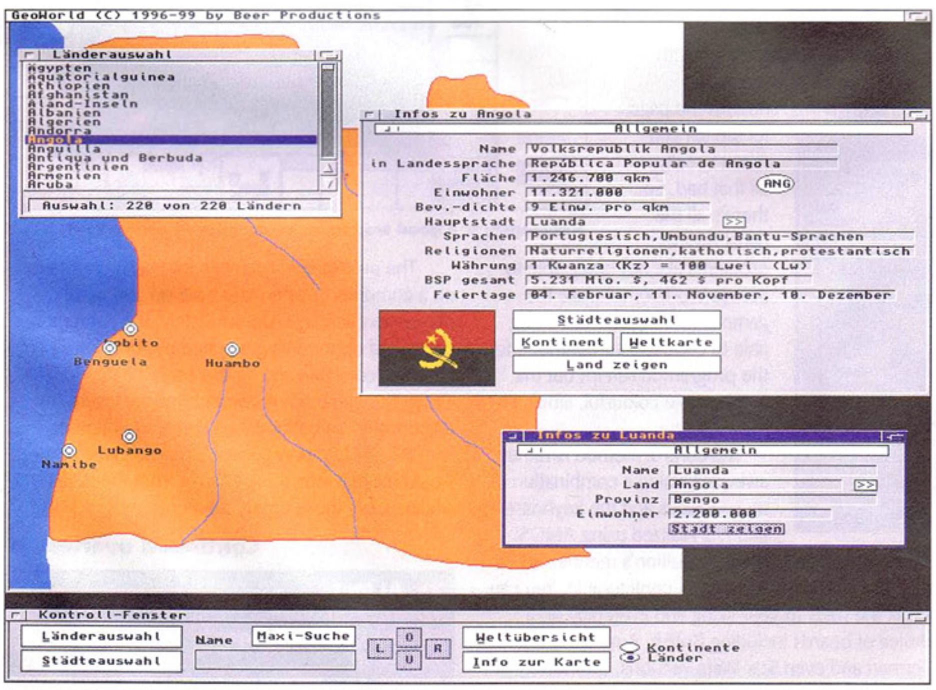
The computer is a great tool for the storage and retrieval of data, but I tend to find that most software designed for reference purposes completely misses the boat. Once you overcome the novelty of it all, you soon discover that your multimedia, interactive encyclopaedia is not very useful at all. One of the exceptions to this rule is the fantastic *Encyclopaedia Britannica*; it looks as if *GeoWorld* may be another.

GeoWorld is an interactive atlas. It is basically a huge database of maps and statistical information. It contains all the countries of the world with data on their population, economics, political system, climate, history, major towns, etc. This database is not yet complete, though.

The main screen of *GeoWorld* presents you with a world map. You can click on countries to get a larger scale map of its continent or the country itself. Additional statistical data can be viewed in another window. You can also search through the database to find the country or city that you are interested in. The search facility could do with being improved, perhaps with a report function, so that you could perform comparisons between different countries. It would be nice to be able represent the data graphically, too.

GeoWorld has been in development for some time. It is a German product and this latest release has no English translation – although an older English demo is available from their website (http://www.freiepreise.de/home/jubee/). The developers are seeking people to aid with the English translation, so if you think you can help them why not get in touch?

A fun extra element in *GeoWorld* is the Quiz section. It asks you a series of questions based on the knowledge stored in its database such as, "Which of the following cities has the smallest population?" or "What political system is in use in Angola?". Surprisingly, my grasp of German is not as bad as I thought it was: I managed to get 70 per cent correct. Only real trainspotters would get all the questions right.



Of course, you all knew that the capital of Angola was Luanda, didn't you?

The thing that really lets this package down is its interface. Don't get me wrong, it's standard Gadtools GUI is fairly obvious to use, but I feel that an application this complex is really crying out for MUI. It would make life so much easier for both its users and developers. There are some niggles, too. Similar to *ABackUp*, *GeoWorld* is font-adaptive but will not allow you to re-size windows. The program seems to encounter refresh problems when used on a graphics card too so when a portion of the background is revealed from under a window it sometimes does not get redrawn.

All in all, *GeoWorld* is a potentially excellent piece of software. With a decent English translation, an interface overhaul and, when the database is completed, it could be an invaluable reference tool. Keeping the information up-to-date is rather a Red Queen Race since the world changes so quickly, but this is one of the advantages software has over the printed word: it is cheaper to revise.

GeoWorld weighs in with a shareware price tag of 24.90 DM (currently about £8.50) and so is a veritable bargain.

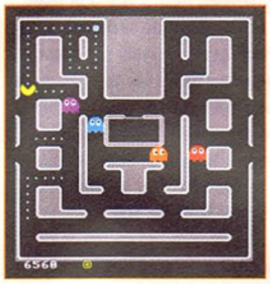


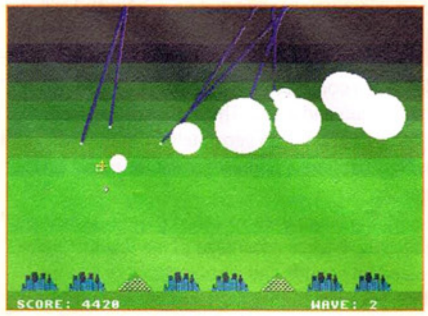
BY: Andre and Ronny Beer
WARE: Shareware
FROM AMINET: misc/edu/GeoWorld-Upd9.lha
SIZE: 489K

Mr E's Compendium

Hmmm. This collection of four games has a title which sounds as if it would interest the Drugs Squad. But don't let that put you off. What may dissuade you is that each of the four games is written with AMOS and that you probably already have a dozen different versions of each one, anyway.

Connect 4 speaks for itself. It is an adequate rendition of the game and the computer-controlled opponent is not too stupid. *Patience* is yet another computer version of *Klondike* or *Sevens* (depending on which side of the pond you live on). It is colourful and easy to play, but the graphics are eye-strainingly small for the cards to be easily recognizable. It also lacks the options and configurability that you generally get with such games. *Mazeman* is that game-programmer's favourite, *Pacman*. Again, it is a colourful, if decidedly average, version of this genre. Last and perhaps best is *Missile*, a clone of that old arcade classic *Missile Command*. It is quite close to the original and is surprisingly good fun to play.





Experience the nostalgia of the arcades with Missile.

Mr E's Compendium offers nothing you haven't seen a hundred times already and, to be honest, there are dozens of better versions of the same games out there. But, at the risk of sounding cliched, £1.50 for four games is still good value for money.

BY: Mr E WARE
WARE: Freeware
FROM: Classic Amiga
DISKS: 1 **PRICE:** £1 (+50 P&P)

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Serious

ImageFX 4

Ben Vost has played with the animation and effects in ***ImageFX4*** and discovered all is not as it should be

Our new-look intros just give me enough room to tell you that, again, we don't have *Tornado 3D* in this issue. The reason for it has been the fact that version 3 is imminent and it seemed a bit silly to review version 2, then follow it the next issue with version 3.

Likewise we don't have *STFax 4* this *AF*. We were planning on bringing it to you, but it seemed that the version we had was still just too much of a beta to base a decision on, so it was best left until next ish. However, we do have some superb items in for review, not least of which is the review of the latest version of *ImageFX*, which starts just to the right of this column…

SERIOUS INDEX

Nova Design have been good to us. They've repeatedly made *ImageFX* a better product, increasing the amount of features included with every revision offered, making it better and better value for money and offering more and more useful graphical effects. However, Kermit still isn't going to like me for saying that the more Nova cram into *ImageFX*'s creaking interface, the more apparent it is that it really needs a serious overhaul. Nova have put a little effort into the interface issues for this revision – moving to ClassAct to make some of the gadgets easier to use, but the fact that you have to resort to using a file requester to access some of the effects is poor. Even a scrolling list like *ADPro*'s operators list would be a better bet, and a wiser use of space than the size-limited effects window and having to use a file requester for anything that doesn't fit in it.

> *The interface hasn't changed over the years so people know where to find the tool they need even if it's in a nonsensical place*

More than this, some of the ways in which the effects are previewed is worthless. A lot of the time you can't position your effect – like the Fireworks effect, for example – in the preview or main window by pointing to where you'd want it to be. Instead, you have to enter co-ordinates for your picture, and once you have done that, beware the preview if it isn't in a 1:1 magnification mode, because you won't get the right idea at all of how your effect is going to turn out.

SPARE SOME CHANGE

Part of the problem is the fact that *ImageFX*'s interface hasn't changed at all over the years it has been developed. People are familiar now with its quirky nature, and know exactly where to find the tool they are looking for, even if it happens to be in a really nonsensical place and, rightly, Nova Design don't want to lose those people, but right now the interface is trying to jam a quart into a pint pot by offering so much without any clue to its

ImageFX can make any picture more interesting with the judicious use of some of its filters. Here we've used Film Grain, Texture, Antique and Colour Balancing to give the image a slightly more painted feel. The original is inset.

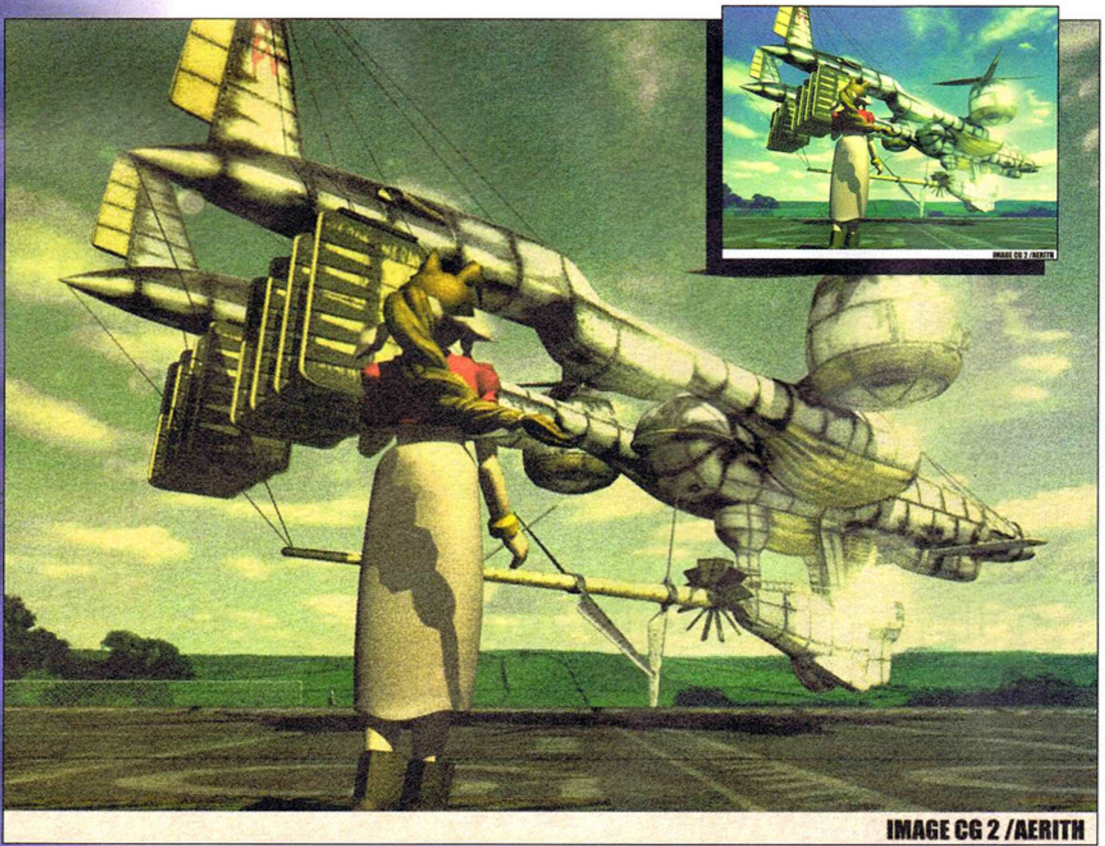
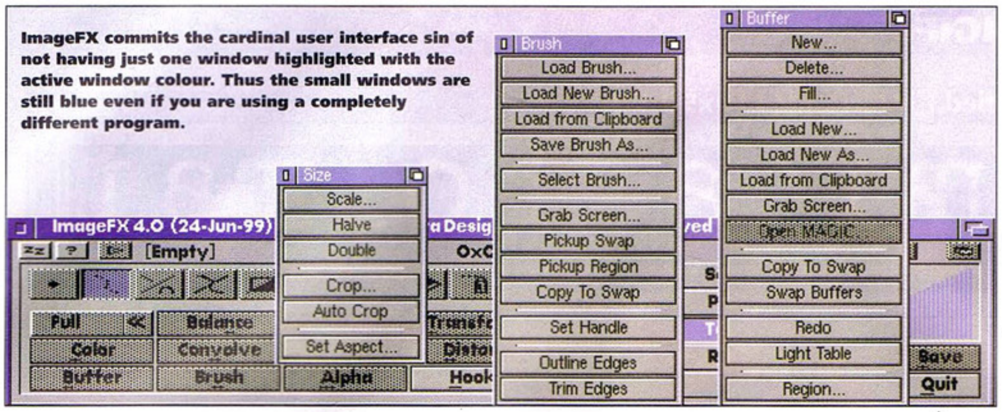


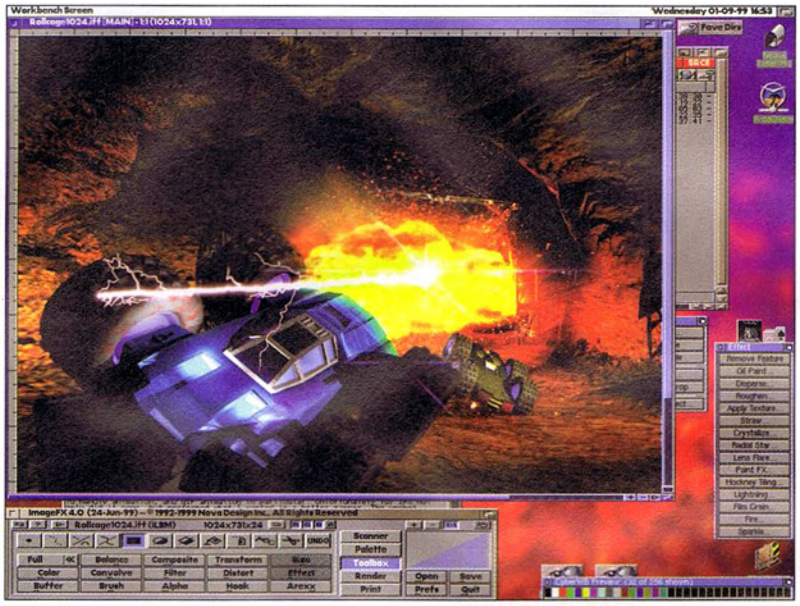
IMAGE CG 2 /AERITH



ImageFX commits the cardinal user interface sin of not having just one window highlighted with the active window colour. Thus the small windows are still blue even if you are using a completely different program.

location. While all the new effects are nice, I would have to say that a decent working environment is more important for me, that is, more feedback on the tools, better previewing of functions and updated interface design. All these things would have merited a completely new version number far better than simply adding some new effects to the pile you already have and don't use regularly. Perhaps this version should have been called 3.5 instead? But, I can hear you cry, the addition of animation has revamped the way the buffers in *ImageFX* work to the extent that the program has been drastically changed, albeit under the bonnet.

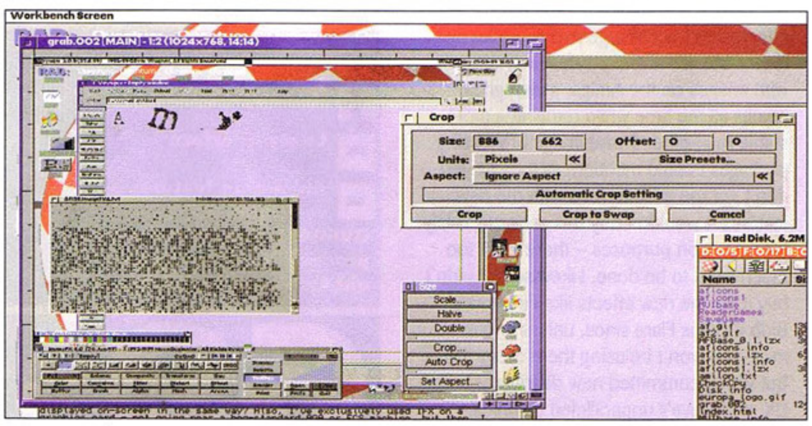
That's as maybe, but it has to be said that the animation facility isn't quite as polished as it ought to be. Again there's little feedback as to exactly what frame you're viewing in an animation, there's no support for timecoding frames (essential for GIF animation for web use), and it's not that intuitive to use. Loading a series of frames as an animation sequence is a confusing process – rather than hitting the open button and multiselecting, or going to the buffer menu, you have to open the Layers window and use its drop-down menu.


The Lens flare and Lightning effects are great, but they take a lot of work to get good results.

HUE AND CRY

On another topic, it's about time that *ImageFX* had some kind of "magic wand" ability, so that you can pick out an individual colour or range of colours. While playing with *ImageFX* for this review I spent some time messing with an image from the *Final Fantasy 7* PlayStation game. I first added some film grain, very nice. I then applied the Antique effect, again, very nice. But as you can see Aeris' jacket is too bright a red now, so I'd be keen to tone it down a little, but all I have to do that with is *ImageFX*'s less than user-friendly "Change Color" tool, whereby I have to specify the RGB value for the colour I want to change (by typing it in – no picking it off the page) and specify, again by typing, the colour I want it changed to. Even with the spread facility, getting the right colour, and also making sure it isn't present elsewhere in the picture (or in the boxed region that you've specified) isn't the easiest of tasks and it still only replaces the range of colours you've specified with just one hue.

Don't get me wrong. *ImageFX*'s range of tools is quite fantastic. I just have to say that it's unlikely you'd want to use them all on a regular basis. While adding texture to a picture may be something you do on occasion, you certainly aren't going to want to have slime dripping down every picture. More of a concentration on the core features of the program would make it better than simply chucking in some new effects that no-one will be using every day. Worse still, by having to call them from a file requester, you get that out-of-sight, out-of-mind feeling about them and wonder exactly what your upgrade fee paid for.


Once you have a tool's interface open, you can't move any of ImageFX's other windows.

For instance, in this version of *ImageFX*, the text handling has had a much needed overhaul. You can now use Postscript fonts, text can be anti-aliased (properly, using sub-pixel divisions rather than just surrounding the object with an intermediate colour), and you can create a new layer with the text on, rather than having it as a brush. All well and good so far, but the text editor always returns to an aliased topaz/8 default setting every time you start the text tool so that, before you even start writing, you'll need to reselect the font and point size you wish to use and switch anti-aliasing on. Writing text to a brush hasn't really changed but writing text to a layer results in an invisible layer being created. This happened on all three computers I tried *ImageFX* on and it can only be made visible by creating an extra layer, then deleting it. At times that isn't even enough, since the text sometimes gets corrupted in the process.

Even file formats, and *ImageFX* is the king of file formats, could do with a bit of a revamp. How about support for Haage & Partner's extension to the ILBM standard to allow for layers? It must be said though that the *ImageFX* support for *Photoshop* format images is a lot better than it was in v3.2. All GIFs, including animGIFs can now be loaded (if you get the GIF loader from Nova Design's website, which is mirrored on the CD), however transparency in an animGIF is not always preserved.

MAIN FEATURES

It must seem like I hate *ImageFX*. I don't at all. In fact I use it nearly every day, but I am fed up that it hasn't got any easier to use after all these years. *Photoshop* can't hold a candle to *ImageFX* these days for the sheer amount of features it comes with. Sure, you can buy add-ons for *Photoshop* that will allow you to do what *ImageFX* can do out of the box, but *ImageFX* has it beat from the start, features-wise. However, you could make do with *Photoshop* if you had to – it's a lot easier to use, and encourages experimentation, something that *ImageFX* positively discourages by hiding options

Continued overleaf ➡

CREATING AN ANIMGIF

I wanted to try to create an anim for a website using *ImageFX*. One of the simplest, yet most effective anim types I've seen online is the text zooming away from the user to fill the frame, so I thought I'd give it a go.

I started by making a new buffer at the right resolution and with the correct number of frames. Then I wrote the words *Amiga Format* in the text tool and had them as a brush. Unfortunately, I could not do anything about the brush handle which is why the text is offset from the page.

First off, I thought I'd try the EOT (Effect Over Time) script for the Perspective operator. All seemed to go well to start off with, but none of the other frames in my animation had anything in them, and the first frame was messed around with so the text appeared to be heavily sheared.

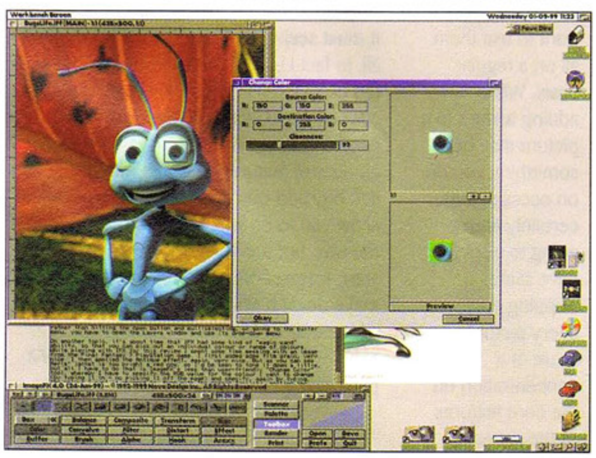
Okay, that didn't work, so I thought I'd try again, only the process frames command no longer worked. Back to the drawing board. I tried again, only this time, I decided to use the Animate Brush function. This allows you to specify a start and stop point for your bit of text, however, it doesn't specify a centre point for the brush, nor is it very good at allowing you to place a start point – again, a visual way of achieving this, rather than numerical input with no feedback would be preferable. However, as you can see, this approach didn't work either.

As a last resort, I wanted to check that what I wanted to do was actually possible in another package, so I tried *PPaint*, long recognised as being able to handle animation, and GIF animation in particular. Unfortunately for *ImageFX* not only did it cope, but it also performed what I wanted in a better manner. The upshot is, don't buy *ImageFX* purely for its animation facilities. They aren't good enough yet.



While ImageFX struggles to make animation work, PPaint gets on with it – we're using the result in Voyager here.

away from the user. So what can Nova Design do about this? Perhaps it's time to finally ditch their circa-1990 interface and go wholly visual, in the same way that *Art Effect* has. While *ImageFX* is unsurpassed when it comes to the sheer number of effects on offer to manipulate your picture, it misses out on some of the basics, or makes them too hard to use. The fact that it works with scanners is brilliant, but perhaps it and the print page of the interface can take more of a back seat? Better yet, give *ImageFX* some proper menus and put them on there. Likewise, the Render panel is great, but why do you have to render to a screen if you want a 32-colour picture, rather than the 24-bit one you have displayed? Why can't it be displayed on-screen in the same way? Also, I've exclusively used *ImageFX* on a graphics card – not going near a bog-standard AGA or ECS machine, but then, I would assume that anyone who is serious enough about their graphics would also have some kind of graphics card. C'mon Kermit and co, let's actually see something that's worth a complete revision number next time.



Oh for a magic wand tool! Even using ImageFX's Change Color tool will only replace a range of colours with a single tone.

Until then, is *ImageFX* worth getting? Absolutely. You'll keep finding nifty new effects and the FXForge part is endlessly extensible. It's also the safest way of dealing with images on the Amiga, giving great results all the time while remaining more stable than other 24-bit image processing packages I could mention, as long as you don't get too adventurous with the new features. I wouldn't buy this program solely for animation purposes – there's still too much work to be done. Likewise I wouldn't buy it for the new effects like Fireworks, Blob or Lens Flare since, unless you're mad, you won't be using them every day. But with a committed new distributor in the UK, and Nova's unparalleled technical support, *ImageFX* is a solid buy. As for existing users – is it worth upgrading? Actually, the text tool alone almost makes this worthwhile, but only for people with deep pockets. Overall, it's a fine package, but it remains too hard to use – a fact that's becoming less and less acceptable.

SUPPLIER: Eyetech 01642 713185
PRICE: £149.95 upgrade from ImageFX v3.x £74.95
REQUIREMENTS: Hard drive and plenty of memory and processor power

Pros and Cons

- \+ Excellent font tool reworking
- \+ Nice new effects
- \- Lousy interface
- \- Animation features not complete

OVERALL VERDICT: It's a good product, let down by an old-fashioned interface

69%

Punchinello

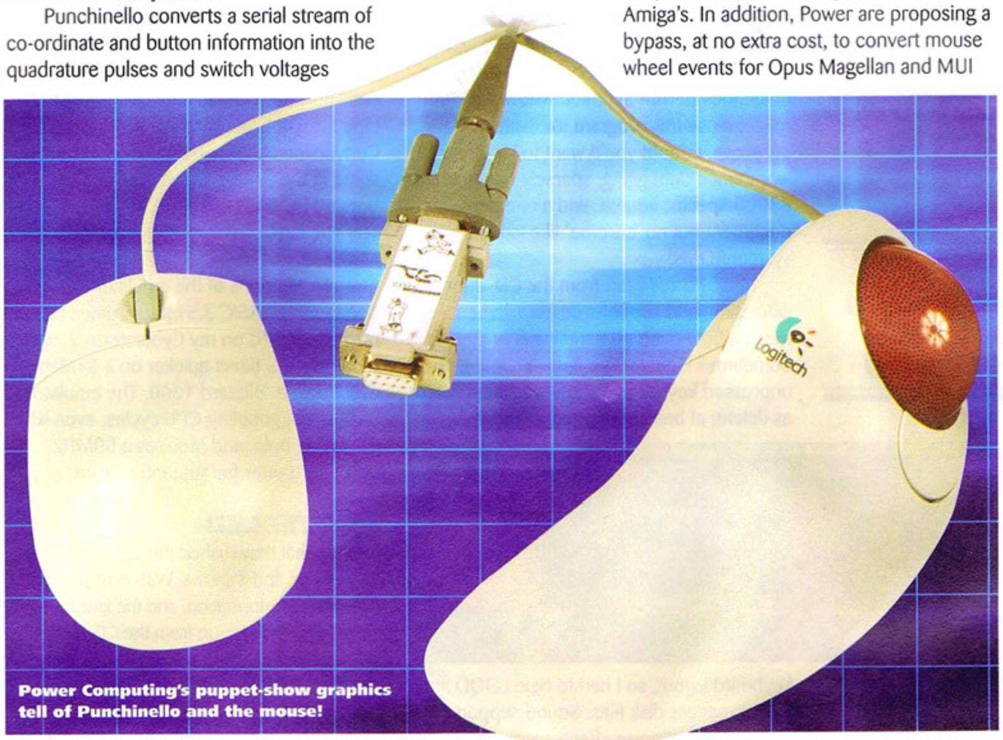
AMIGA GOLD FORMAT

A tiny but intelligent adaptor gets Simon Goodwin squeaking enthusiastically

Punchinello lets you use the hundreds of PC pointing devices as if they were made for the Amiga. Power Computing's latest import from Poland, land of EIDE'99, is exceptionally simple to use, but fiendishly clever.

Punchinello converts a serial stream of co-ordinate and button information into the quadrature pulses and switch voltages expected by the Amiga controller hardware. It works in both Amiga controller ports, like a fixed-protocol 1200 baud silicon mouse driver, thanks to a tiny PIC processor located in the adaptor.

There's a slight lag on screen – a few tens of milliseconds – similar to that with UAE, and slightly more noticeable than with SerMouse software but at 1200 baud, PC mice don't report quite often enough to update every frame. Serial data must be collected, transmitted and converted back to pulses, while real Amiga mice update continuously, so the pointer can move every time the screen is redrawn.



Power Computing's puppet-show graphics tell of Punchinello and the mouse!

HISTORY

Previously you did this with Aminet utilities like SerMouse, but these are less useful than a real Amiga mouse. Software drivers need to bypass the Amiga hardware, so you could not use them to access the early startup compatibility menu, or to play mouse-driven games like *Lemmings*, *Settlers* or *Populous*. Drivers require configuration, and tie up a serial port capable of much better things.

Punchinello, named after a bizarre rodent event in the Italian Punch and Judy script, mimics Topolino (*AF126*) in name as well as style. But Punchinello goes further, supporting three-button controllers which are plentiful on PC's but gold dust on Amiga's. In addition, Power are proposing a bypass, at no extra cost, to convert mouse wheel events for Opus Magellan and MUI packages that act upon them. The Amiga controller port hardware can accommodate the third button, and many programs use it, but at the moment the system has nowhere to store mouse wheel information.

> **Punchinello mimics Topolino but it goes further by supporting three-button controllers which are like gold dust on the Amiga.**

The adaptor is about two inches long, so you need that much extra space behind or beside your Amiga. It plugs straight into the controller port, with captive retaining screws, but no pillars to hold the mouse plug in place. However, this reduces the risk that a tug on the mouse cable might yank the fragile board-mounted Amiga connector. You can swap compatible PC controllers without resetting the machine, but the adaptor should not be unplugged while the Amiga is powering it otherwise, as with any Amiga mouse, there's a slim possibility of damaging the computer.

COMPATIBILITY

There are at least four PC serial mouse protocols, sending messages that are two to five-bytes long. Punchinello supports the three-button protocol of Mouse Systems 'PC Mouse', Logitech's four-byte variant and some Microsoft two button devices, but not PS/2 alternatives. Most of the nice tablets, pens, trackballs and mice retailing now use Microsoft or Mouse Systems protocol, and often both.

When tested, Punchinello worked immediately with a three-button Lynx 30S clone mouse, made in China and branded 'Enact'. This was a bit sluggish until I switched on mouse acceleration in Input preferences, but was no worse than a two-button Hong Kong A500 mouse. *Amiga Format's* Richard Drummond favours a Vivanco PC mouse, with the mouse wheel acting as a third button and Ben says, "I'm using it with a Logitech Trackman Marble FX which is absolutely superb. I don't normally like trackballs, but this one works beautifully."

Epic's PenMouse 2 and SpeedMouse mini worked in two-button Microsoft mode, as long as I turned the computer off before fitting them. Aztech serial mice support both serial standards. Holding down the left button when you power up selects PC Mouse mode, making the third button useable. An Alfadata optical mouse works in both PC modes. But neither a US-made Alps Glidepoint pad, nor a Microsoft PS2-compatible serial mouse, made in Eire, were recognised, although both are useable with SerMouse. So, compatibility is not assured, but firmware upgrades should improve it.

THE VERDICT

I like the simplicity of Punchinello. The price is at impulse-purchase level and fitting is trivial; Punchinello definitely deserves its Format Gold, but check the compatibility before you buy a controller to go with it. There are lots that will work, but quite a few that don't.

SUPPLIER: Power Computing
01234 851500
http://www.powerc.co.uk
PRICE: £14.95

Pros and Cons

- \+ Exceptionally easy to install and use
- \+ Supports Early Startup and a third button
- \+ Free MouseWheel upgrade promise
- \- Not all serial pointing devices suit it

OVERALL VERDICT:
Clever, elegant and useful

91%

CPC Classix

Simon Goodwin explores the latest emulation collection

This latest from Epic, who brought us *Flash ROMs* and *MSX Nostalgia*, focuses on Amstrad CPC emulation. The CD cover promises 'over 1,000 classic Amstrad CPC games, ready to use on Windows and Amiga'.

The program files are in a directory labelled 'ROMS', but CPC programs generally shipped on cassette or three inch Hitachi tiddlydisks. Here they appear as uncompressed 190K DSK image files, mostly three-quarters empty once you delve inside with a CAT command, runnable straight from the CD in *ACPC*.

> *It's a shame that the compilers did not include Amstrad documentation and FAQ files from the net. CPC, ACPC and AmiCPC are duplicated*

These padded program files occupy 330 Megabytes, the vast majority of the space and half the CD capacity. The only documentation is the odd couple of lines added by uploaders in PC .TXT files. 76 ROM images include undocumented hardware toolkits, DOSes and system ROMs (with Amstrad's permission).

PC and Amiga emulator engines occupy a couple of megabytes each, plus CPC file utilities and games conversions for Windows in a separate directory. The few short text files have messy PC newlines and no icons.

Tape and disk filers appear among the Amiga archives, and come with the individual emulators, but it's a shame the compilers did not include Amstrad documentation and FAQ files from the Net. *CPE*, *ACPC* and *AmiCPC* are duplicated, in old and later versions, mostly several years old. You need 3.5 MB to install the lot to hard disk from the supplied archive files.



The Addams Family game made good use of CPC colours.

EMULATORS

The spartan *CPE 1.02* was derived from Charlie Gibbs' *SimCPM* by the ubiquitous Berndt Schmidt, who warns "you may not use this program for military purposes. I doubt you'd want to". It offers workbench debugging, sparsely commented 68000-specific source, and a one page document but no 'chrome' like icons or system ROMs!

AmiCPC 0.44 ran from the CD, after extraction, and supports custom screen modes, but keyboard handling is buggy. Sometimes it got locked auto-repeating an unpressed key, or every key was interpreted as delete; at best it expected a French keyboard layout, so I had to type LOQD and CQT to access disk files. Sound supported tones okay but noise effects were replaced by clicks. *AmiCPC 0.46* was present but useless, as downloading appears to have stopped prematurely!



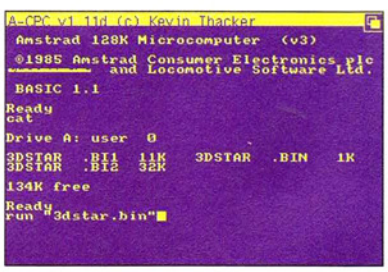
EmuCPC 0.7 uses function keys rather than menus.

The *ACPC 1.11* installation would not run from Workbench, complaining about problems in the startup icon configuration, but worked fairly well from a shell, although the menus are messed up unless you use Topaz or a similarly tiny default font. Poor beam synchronisation makes some sprites flickery and fast-scrolling text hard to read. Some of the disk images were obviously 'cracked' commercial originals; a few were diagnosed 'read fail' and would not load at all.

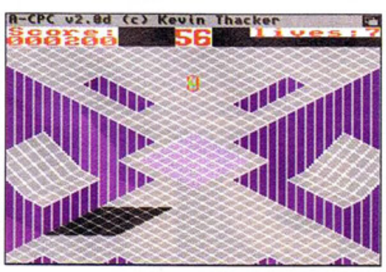
The *ACPC 2* demo worked smoothly from Workbench but seemed a bit slower.



CodeMasters' 3D Starfighter used the CPC four colour mode.



CAT and RUN and away you go, with CD files inside ACPC.



CPC Gyroscope was not a patch on the Amiga version.

The full version costs £10 and supports file output, real CPC drives, Multiface and some CPC+ features. *ACPC* is more complete than its freeware rivals, but *EmuCPC* comes close.

EmuCPC 0.7 runs after unpacking the LZX archive, but cannot directly recognise any of the DSK format files on the CD, which is a pity as it's otherwise a good emulator, even capable of saving Amstrad tape format through Amiga audio hardware! Conversion utilities are included, although some in the 'Amiga' drawer are actually Borland PC code.

The keyboard handler sometimes gets confused, but clears up after a few keys are pressed. Versions of the emulator run *Locomotive BASIC 3.5* up to 4 times faster than a real CPC on my Cyberstorm 2, and reputedly 5.5 times quicker on a 64MHz overclocked Blizzard 1260. The emulator busy-waits, gobbling CPU cycles, even when displaying help, and requires a 50MHz 68030 or better for authentic speed.

SHOVELLED

Epic say that they rushed this CD out for the WoA show, and it shows. With Amiga icons, background information, and the latest emulators ready to run from the CD, it could be quite attractive, but so far it seems more like the results of a rather unselective trawl through CPC web archives. An update is promised, and there's room for it, but Amstrad aficionados could already save a lot of on-line time by purchasing this collection.

SUPPLIER: Epic Marketing, 0500 131486, http://www.epicmarketing.ltd.net
REQUIRES: 32-bit Amiga with fast memory and CD drive
PRICE: £12.99

Pros and Cons

- **+ A hefty CPC game collection on one CD**
- **– No Amiga icons or installed emulators**
- **– Lacks Amstrad-specific documentation**
- **– Some archives and disk images corrupt**

OVERALL VERDICT:
If once you fancied a CPC, you'll probably hanker after this

61%

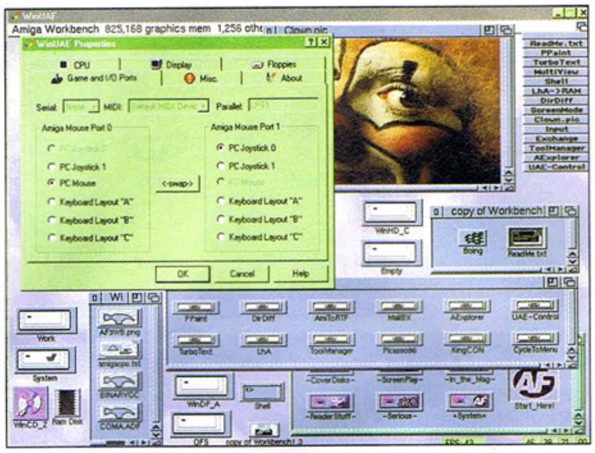
Amiga Forever 3.0

Simon Goodwin takes another look at the ersatz 'Amiga'

Cloanto's *Amiga Forever* now includes Workbench 3.1 ROM and Amiga system files. A utility compilation in a Windows hardfile makes the Amiga environment friendlier than Commodore's basic installation. Preset configurations support Kickstart 1.3 and 3.1, and you can mix your own with the preferences GUI. All documentation is on the CD.

PROCESSING

UAE can emulate a plain 68000 or a 68020, with or without an FPU. Speed can be locked to A500 performance (when possible) or apportioned between custom chip set and CPU emulation. Serial and MIDI input are lacking, but *WinUAE* can share a PC Internet stack. Parallel output is direct, so Windows-only printers are useless and you might need *Turboprint* or *Studio*, as on real Amigas, to supplement Commodore's 12-bit drivers.

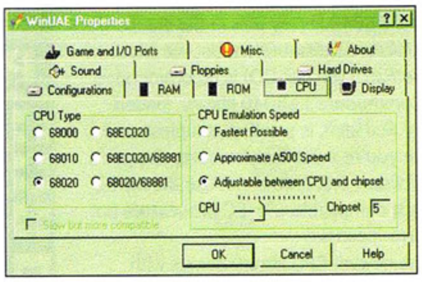


Bundled tools and Picasso96 are the highlights of Amiga Forever.

> Some old games and demos expect memory in specific places... so UAE might be more compatible than some real Amigas

A 500MHz Pentium 3 approaches stock A3000 speed, but *UAE* gets nowhere near 68040 or 68060 Amiga performance; emulation requires about 50 Intel instructions for each Motorola one, so this is not likely to change in a hurry. *WinUAE 0.8.8 release 5* outruns the first *Amiga Forever*, so I retested GCD maths and Twister graphics, against A500 and fast A1200 systems. It's still nearer the former than the latter...

Accurate graphics and sound often consume more power than processor emulation, so *WinUAE* can fudge typical cases when precision is less important than performance. Fidelity is extremely CPU-intensive, so Cloanto recommend a 300MHz Pentium 2 or better for even mono 8-bit sound in *WinUAE*.



F12 summons WinUAE's control panel for fine-tuning.

SPEED COMPARISONS

System	CPU	MHz	UAE	GCD	Twister
A500	68000	7.2	none	475	125
Pentium	MMX	166	0.8.8	155	41
Pentium	II	350	0.8.8	90	22
A1200	68060	75	none	7.3	1.5

GRAPHICS

Picasso96 RTG shifts much work to Windows Direct-X drivers, which are free but not included on the CD. Many Amiga graphics cards are based on PC display chips, so 'emulating' them is relatively easy. 24-bit Picasso modes left a messy trail around the pointer, but this can happen when running Picasso96 drivers on a real Amiga, and 8-bit and 15-bit Picasso modes work OK. *Personal Paint 7* is included in its standard Amiga incarnation, limited to 256 colours but managing up to 1280 by 1024 pixels on one screen.



Fellow ran the old Coma demo creditably on a 'mere' Pentium 166.

UAE's 'AGA' features amount to two more bit planes. AGA sprites and dual playfield modes are missing, so the only extra programs that run are ones designed for simple single-plane screens, particularly in 256 colour palette modes. Those often support Picasso RTG, which is why they were written or ported that way in the first place. Programs written specifically for AGA, using modern Amiga hardware scrolling, sprites and overlays, have no chance.

MEMORY

You can specify up to eight megabytes of Chip RAM, Zorro 2 and graphics card memory in *WinUAE* preferences, plus a meg of 'slow RAM' and a gig of 'Zorro 3' fast RAM. Some old games and demos expect memory in specific places, especially at $C00000, so *UAE* might be more compatible than some real Amigas, although hacks exist for machines with real MMUs to map memory anywhere; UAE cannot emulate Motorola memory management, or the speed difference between all these memory types. All RAM is taken from the Windows pool, using hard disk if necessary. Such 'virtual memory' cripples performance and multi-tasking, as Windows juggles memory and disk space.

FELLOW

The optimised MS-DOS emulator *Fellow* is also included. This has a better chance of running old games, especially if you expect sound on anything less than the ultimate Pentium or clone, but lacks Picasso RTG enhancements which make WinUAE relatively impressive for Workbench-friendly code. Rebels' classic *Coma* demo ran on a P166 with full stereo sound but a ragged display.

Windows 95 lets you hop between UAE and Microsoft by pressing ALT TAB. But if the emulator crashes when setting up, or trying new software from ADF 'floppy emulation' files, Windows may insist on scouring the hard drive for several minutes before you can try again. This is like Linux 'I-node checks', Macintosh 'desktop rebuilding' or Amiga 'validation' delays, but unwelcome if you're used to MS-DOS which tolerates resets any time.

UAE still lacks support for Amiga floppy disks, a PC hardware problem which no amount of programming can fix. There are two ways round it – connect a real Amiga via serial or Ethernet ports to the *AmigaExplorer* Windows software, reminiscent of *DirWork*, or buy an ISA CatWeasel disk controller.

COMPILED BY: Cloanto
http://www.cloanto.com/amiga/forever
PRICE: £39.95

Pros and Cons

- + Now includes Workbench 3.1 and goodies
- + Good Picasso96 RTG and Fellow for games
- − Floppy disks require Catweasel or ADF files
- − Still no MIDI input or Windows printer driver

OVERALL VERDICT: The state of the art in Amiga emulation

79%

DCE Blizzard 1240/40

Simon Goodwin pits the ***40 MHz Blizzard 68040*** against rival A1200 accelerators

Blizzard 1240 accelerators have been reborn now that German-based DCE and Bedford's Power Computing have re-started production under licence, leaving phase 5 to concentrate on PPCs. The 1240 overclocks an XC68040RC25 processor, rated by Motorola at 25MHz, to 40MHz, the top recommended speed for any 68040. A cooling fan allows use in a desktop 1200 but a tower version is £10 cheaper.

Our review model was supplied with a single-sided 64MB 72-pin SIMM, bringing the total price to almost £300. There's a connector for a DMA SCSI controller, as reviewed with the 1260, which can piggyback another SIMM up to 128MB in size. Single-sided SIMMs from 4MB upwards are compatible. You must budget for some fast memory or the 68040 caches will not be fully used. The 1240/40 is no faster than an A3000/030/25 until its caches are enabled, but then the 68040 core can run six times faster!

TOO HOT TO HANDLE

I tested the 1240 with an A500 power supply, not trusting the stock A1200 one. This accelerator is the greediest in the 68K range, drawing two amps from the five volt rail even before allowing for RAM. The processor and fan got too hot to touch, but it was stable, although I did not attempt to wedge the trapdoor cover over the fan. Salvatore, at Power, recommends cork feet to improve airflow under the computer, but DCE reckon it should work even if the case is closed. Either way, spacers are certainly a good idea if your A1200 lives on the carpet.

UAE enthusiasts would need to bake their Pentiums at two or three GHz to stand a chance of matching the Blizzard 1240

This was one of the first boards from the DCE production line, with some niggles which production units should solve. The fan fell off in transit, and the gold plating had missed several pins on the SCSI expansion connector, leaving a tinned surface which would be prone to corrosion.

It's easy to fit the accelerator and there is just one configuration jumper, enabling 'MapROM' hardware which copies *Kickstart* into 512K of fast memory. Software patches can do this, and you'll probably use the hardware Memory Management Unit anyway as it's included on the chip.

RAM SPEED TEST

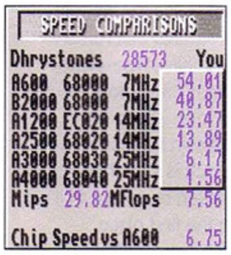
	READ word	READ long	READ multi	WRITE word	WRITE long	WRITE multi
Blizzard A1240/40						
Standard	34.4	36.4	35.6	19.5	19.5	19.4
Chip RAM	1.6	3.1	3.1	1.6	3.1	3.2
Apollo A1240/28						
Fast RAM	34.2	38.1	35.4	22.4	23.0	22.6
Chip RAM	2.3	4.6	4.6	2.0	4.6	4.7



The Blizzard 1240 is a cost-effective upgrade with plenty of speed.

DO YOUR SUMS

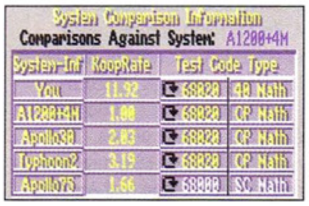
The full 68040 has an optimised floating point unit, making a separate 68882 redundant. It's much faster on basic maths functions, but needs extra code from Motorola for transcendental functions like logarithms and tangents. The 68040.library sets up the floating point support and 68040 caches. There are now four variants freely available, so I've tested them all on this mature board.



At almost 30 MIPS, SysInfo rates the Blizzard above any of the Commodore Amiga configurations.

The Blizzard 1240 is shipped, by Power, without software. It suits CPU and 68040.library files in the standard *Kickstart 3* distribution, but the latest *SetPatch* (on our CD) is recommended. Commodore's 68040.library, loaded by *SetPatch*, is smallest, simplest, and the one you're most likely to have, shipped with *Kickstart 3.0*. It does not use the MMU, making it compatible with EC processors but not Zorro 3 cards.

The newest CPU library comes with Thomas Richter's freely-distributable mmu.library, which does lots of other tricks on 68040s and other systems with memory management units. This version is stable, even with SCSI DMA, but Thor has some optimising to do to match the arithmetic speed of proprietary rivals.



The Blizzard is the clear leader on raw floating point operations.

Apollo's oddly-named 68o4o.library is marginally faster on some AIBB tests, but pipped to the post on AIBB's Beachball test by version 46.5 of phase 5's library, from the ftp://phase5.de. All benefit from *OxyPatcher* when running code written for a separate FPU.

I also tried BinaryGCD and Twister tests which I've been torturing UAE with recently. The 1240 needed more than double the time as the Apollo 1260 on these integer-intensive tests, at 16.6 and 3.39 seconds respectively.

UAE enthusiasts would need to bake their Pentiums at two or three GHz to stand a chance of matching the Blizzard 1240. It may not be a new design, but if you want to run Amiga software, it's still a very cost-effective upgrade, with plenty of speed for *Doom*, JPEGs and web browsing. A lot of people have to retire outclassed A1200 boards; this time your investment is relatively protected by the £70 SIMM and SCSI expansion option, and the board can be upgraded to a 68060 if you crave more 68K performance later.

SUPPLIER: Power Computing
Tel 01234 851500
http://www.powerc.co.uk
PRICE: £159.95

Pros and Cons

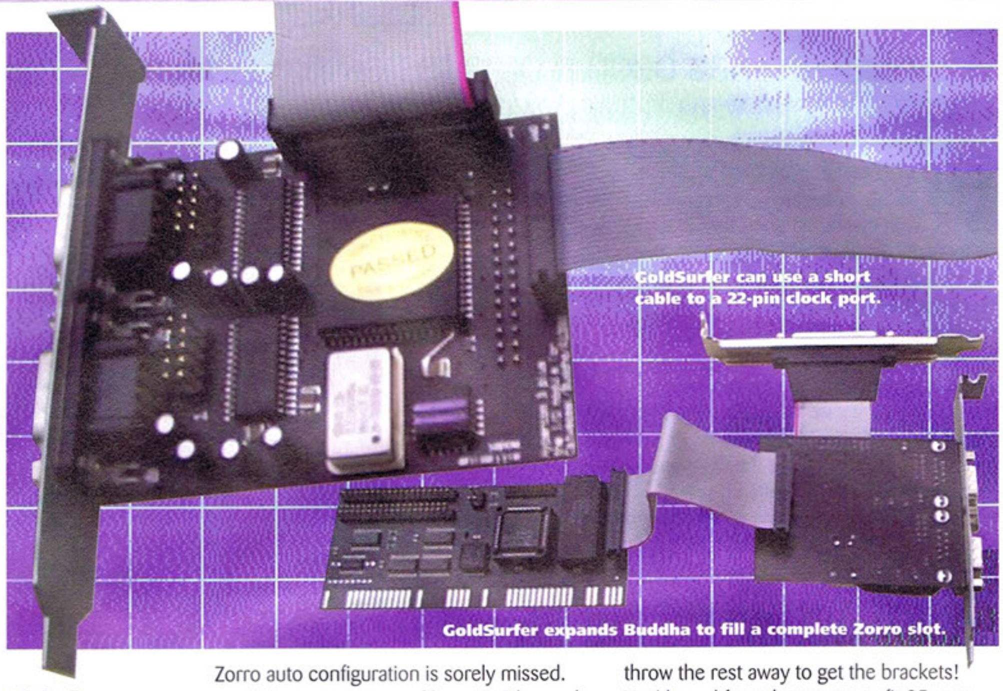
- **+ Top-speed 40MHz full 68040**
- **+ Slot for SCSI controller and SIMM**
- **+ Option to upgrade to 68060 later**
- **− Needs more juice than other 68Ks**

OVERALL VERDICT:
Tried and tested A1200 acceleration at a pared price

86%

GoldSurfer Hypercom

Simon Goodwin wrestles with an eccentric Hypercom multi-IO remix



GoldSurfer can use a short cable to a 22-pin clock port.

GoldSurfer expands Buddha to fill a complete Zorro slot.

Originally GoldSurfer was confusingly called Hypercom3+.

The collaboration between Individual Computers and VMC on Zorro Hypercoms has brought forth a small variation called GoldSurfer. This offers one parallel and two fast serial ports, based on the usual StarTech buffered interface.

GoldSurfer can plug into a 22-pin clock port, originally an A1200 afterthought variously intended for RAM expansion, network hardware and a real-time clock but since extended for floppy drives, sound cards and serial ports. It is now also used as a minimal interface standard on Zorro cards and expansion backplanes, modified drivers permitting. However, the 10cm ribbon cable won't fit the full 40-pin port on some Commodore A1200s, and burns out if plugged in backwards.

Alternatively, you can stick the GoldSurfer at the end of a standard expansion slot, alongside any Zorro incarnation of Catweasel or Buddha interfaces. Those boards are made to control internal drives, so they're short and leave the bracket at the end of the slot undisturbed, but have a simple 26-pin interface for daughterboards which can share their Zorro interface. Buddha Flash also has a surrogate clock port, but you can't use both at once. A ribbon cable from the Zorro half-card to the GoldSurfer makes it a true multi-IO card.

> *GoldSurfer targets Amiga towers with plenty of slots but the makers should devote more thought to connectors and software*

The parallel port uses the generic Hypercom driver, compatible with printers and scanners but not yet parallel ZIPs or networks. Its 25-way socket matches the Amiga motherboard one, on a flying card-edge bracket. It can out-run the motherboard port, but PC-type EPP and ECP modes are not supported without IBM DMA hardware. Redirection is handled by PrintManager shareware.

individual computers jens schönfeld

GoldSurfer comes from the same stable as Grafitti and Catweasel cards.

ESSENTIAL SELECTION

The software is a mess, as VMC and Individual Computers concede. At WoA I was handed an unlabelled disk with a dozen serial drivers. Most were from a 1998 Hypercom set, and the only one the default installation did not shovel onto my hard disk was hyperCOM30.device, which the A4 installation sheet said was essential. I was told to get the update from the German VMC web site, which includes no such file, but two called hyperCOM3.device and another five close relations! The luxury of Zorro auto configuration is sorely missed.

Given vmcresource.library in Libs: and the right driver in Devs: you can configure its name and unit numbers into your communications software. Get the mixture of upper and lower case just right, sort out the cabling, and you could be receiving at 460,800 baud without loss of multitasking. Transmission at very high speeds is CPU-heavy, traced to a hardware fault – the 16C550 is not reporting its output buffer status properly and the prototype software fix killed our CD compiler's ISDN connection, so he went to the earlier v2.89.

Individual Computers propose custom installation disks for this GoldSurfer and a forthcoming Silver model, but no update reached us a month after the hardware. I was unable to use the serial drivers from the Shell on my Amiga 3000 with Workbench 2.04, despite attempts to make a custom mountlist.

MECHANICS

The nine-pin D-type serial connectors are so close on the card bracket that the plugs on a standard Laplink serial cable were crushed together and did not fit properly, straining the board-mounted connectors. Don't expect to use a nine to 25-way adaptor and still retain access to the second socket.

There are a couple of 10-pin headers for conventional 25-way D-type serial sockets, which would match the serial connector on the back of the Amiga, but cables, sockets and brackets are not provided. You might get these from a PC vendor, but it may be cheaper or easier to buy a PC IO card or complete PC-AT and throw the rest away to get the brackets! You'd need four slot spaces to fit 25-way D-types, but could get by with three if you kept one nine-pin serial connector.

TARGET CONTROL

GoldSurfer targets Amiga towers with plenty of slots, but more thought needs to be given to connectors and software. You'd be lucky to find the A1200 clock port near enough to a hole to connect the card with the supplied cable, so budget for extra serial or clock port extensions. If you've already got a Buddha or Catweasel, this may be an economical way to fill out the slot, and if you're towering up an A1200 it might ease later Zorro expansion.

SUPPLIER: Individual Computers, Roermonder Str 228, 52072 Aachen, Germany
PRICE: 76 Euros (about £50)

Pros and Cons

- \+ Good basic specifications
- − Dreadful software installer
- − Cramped serial sockets
- − Clock port cable is limiting

OVERALL VERDICT:
An under-developed and niche product

56%

OS 3.5 Preview

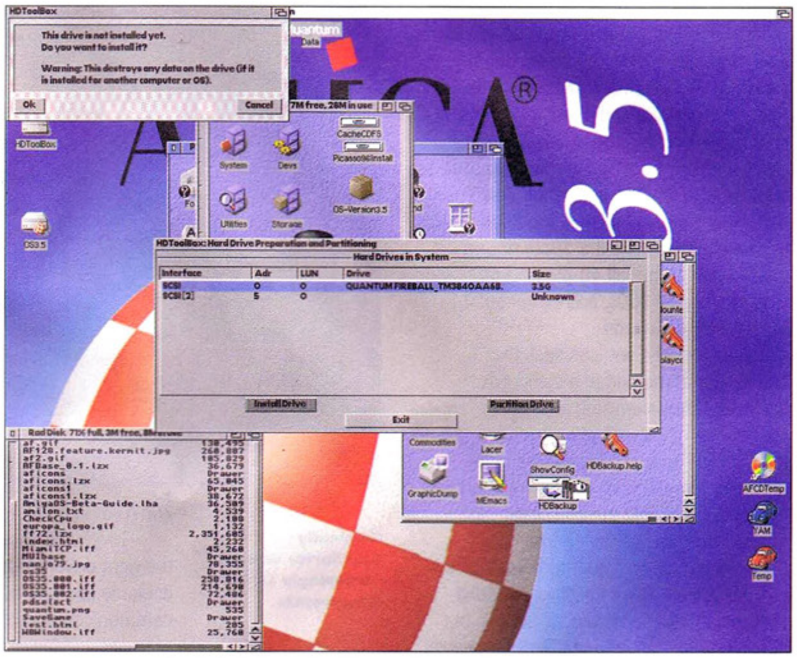
Ben Vost has been a beta tester for OS3.5 over the last three months – now he tells you how it will work...

We get a lot of people asking about OS3.5. Some are worried that it won't work with their favourite text editor/paint package/WB hack, others that the system they've so carefully set up will no longer perform as expected or that Workbench replacements they're using will no longer replace Workbench.

Part of the problem is the fact that it's been so long since we last had a revision of Workbench. This has lead to a mass of hacks and patches to make the OS more modern. People haven't patiently waited until there was a new version of Workbench to cure whatever problems they had, they've gone out and found a bit of software that can cure things for them immediately. Another part of the problem is the applications that simply replace the Workbench completely, like *Directory Opus* or lately *Scalos*. These systems have sprung up to cure some of Workbench's shortcomings and do a very good job of it – I wouldn't be without my DOpusbench, and Rich is happy with *Scalos* instead of Workbench.

EYE-CATCHING ICONS

I can't comment on *Scalos*' compatibility with OS3.5, but *Opus* seems to coexist with it very well, with one exception, the support for the new icon format. As you'll see from the pictures about this page, the icons for the new Workbench look pretty snazzy. Gone are the stark four-colour icons from WB2, and in are the so-called "GlowIcons" designed by Matt Chaput. They share a lot of similarities with *NewIcons*, and *NewIcons* are displayed just fine for the most part under the new Workbench. However, *DOpus* sidetracks from the way Workbench displayed icons in order to not use any Chip RAM, unless absolutely necessary, and this breaks under the new Workbench with no retrieval prospects. Likewise, people that don't have OS3.5 will get four-coloured versions of the new icon format as standard – no way of patching older Workbenches to provide a *NewIcons*-type approach.



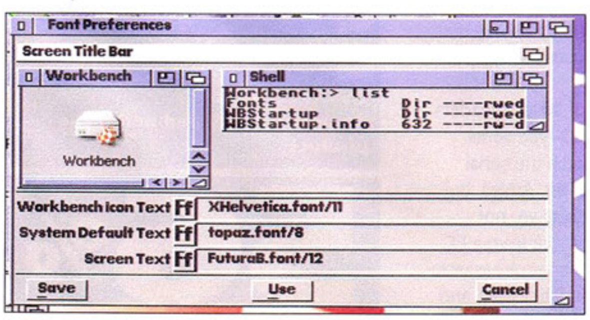
This is a bit worrying – the drive it's talking about is the one with OS 3.5 and the rest of my machine on it.

Other than icons, Workbench hasn't changed much visually with the major exception of ReAction, a version of ClassAct that is used for many of the Preference programs and standard utility user interfaces and requesters. ReAction offers minimal, global user-customisation of ReAction-based programs, such as what backdrop pattern to give them and so on.

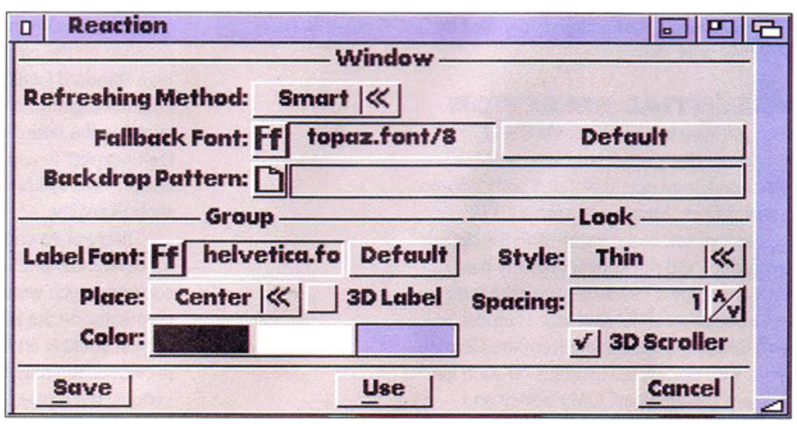
> **Workbench operation is now much smoother with keyboard navigation of windows and ghosted icons when dragging**

There's one new preferences editor – Workbench prefs. This allows you to hide drives, change the global stack size (which I assume is similar to setting the stacksize in the startup-seqequence), and turn on and off borders for icons. Some of the other editors have also been updated to incorporate new features, like additional ports for the serial and printer preference programs, and nearly all are now resizable.

Two more visual indicators have been added to Workbench. The first was mentioned by Simon in his look at the version of OS3.5 on display at the World of Amiga show in July. This was that Workbench now has progress displays for



The new font prefs has a preview to show what your choices will look like.



ReAction Prefs allows you to customise how your ReAction GUIs look.

STILL MISSING

The version of OS3.5 I've been talking about on these pages isn't the final one you'll be using, but a beta. As such, it doesn't contain all the files and programs that will be included in the release version.

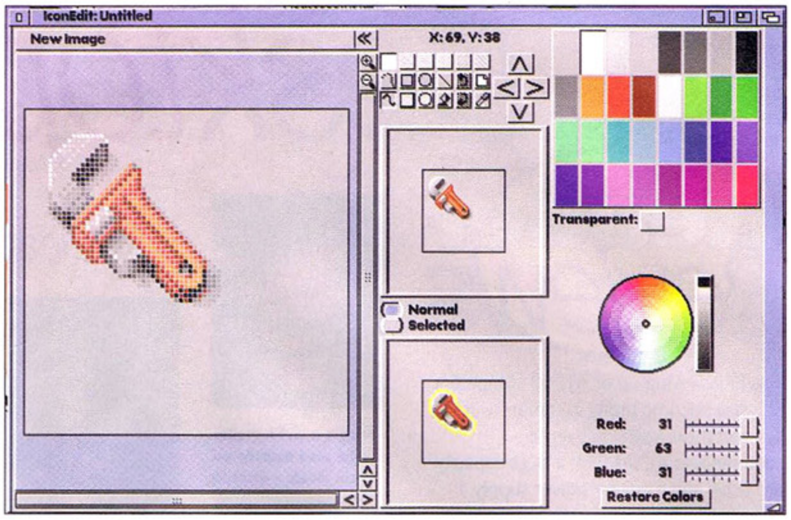
TCP stack
A cut-down version of Miami Deluxe is promised for the final version of OS3.5, but as yet, isn't available to beta testers;

Browser
Likewise the version of AWeb produced especially for OS3.5 isn't available;

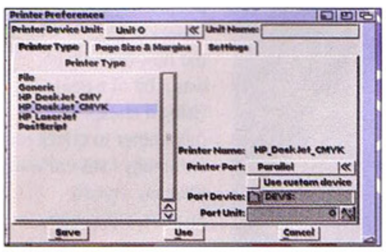
Email client
The email library and client aren't yet ready;

Printer drivers
The latest version of the beta now includes drivers for the HP Laserjet and CMY and CMYK HP Deskjet printers, but none of the others are included as yet;

Documentation
None of the HTML docs are ready yet, either in English or German.



The new IconEdit is vastly improved over the Workbench 3.1 version.

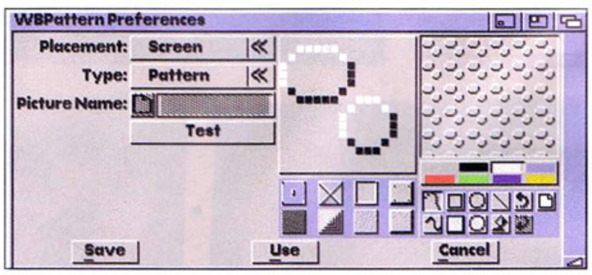


Although only a few of the promised new printer drivers are there, the new Printer Prefs works very nicely.

copying or deleting files. This bar only appears if worthwhile – deleting or copying small files won't cause it to appear. A recent addition is the WBGauge bar on drive windows, as shown in some of the pictures on these pages. Although WB1.2 offered it first, the new gauge gives a much better indication of how full the drive is at a glance, although I think that people will be more used to simply looking at a drive window's title bar to see how much space is available now. However, these are both very obvious. What is less obvious is the fact that Workbench operation is now much smoother, with keyboard navigation of windows and ghosted icons when dragging to allow you to see what you are doing. Here's an example. If you open a new shell window while you have a Workbench window active, the path for the new shell window will be to that drawer.

A real bonus is the existence of an ARexx port for Workbench – something it has been crying out for years to have. You can now open windows, use menus and more all through ARexx.

Installer has had a cosmetic update too. Like the original press release stated, it can now open its own screen complete with backdrop pictures, but it still doesn't offer forward and backward operation, as promised. There is some chance that the so-called *Savage Installer* will get used instead at some point (v3.6 of the OS?), but since that makes use of MUI, it's hard to see it included in with Workbench.



Even the hoary old WBPattern Prefs has had an update.

IS IT ALL WORTH IT?

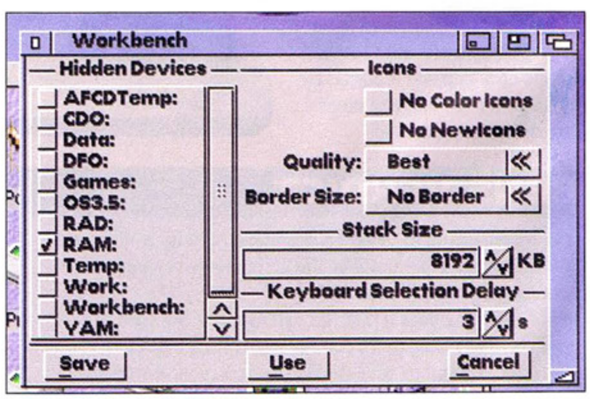
Other than these little details, the $64,000 question is "Will it be worth buying it?" I would say yes. You still won't be ditching all your hacks from your WBStartup drawer, but some will go, and you'll have a much nicer Workbench to use into the bargain. Now, this assumes that you already have the appropriate Kickstart 3.1 ROMs ready to run with it. If you don't, you'll have to factor the cost of the ROMs into your decision to purchase OS3.5 – don't expect to be able to softkick into 3.1 – the final release won't work with anything other than physical Kickstart chips! However, I'd say that it's still worthwhile, mainly because we don't want to end up in a similar situation to the days of the changeover between Kickstart/Workbench 1.3 and Kickstart/Workbench 2.04, where developers were trapped between making their software work on one or the other. Developers are a lot more savvy these days, but even so… Secondly, you can expect a lot of software to take advantage of the new features offered by OS3.5 as soon as it's available. For one, we'll be moving to OS3.5-style icons in the near future as part of our support for the new OS, so to see them in all their glory you'll have to be running the new OS, otherwise you'll just get four-colour versions.

But what if you're using *Opus* as WBR, or *Scalos*? Even then, the new version of the OS will be a must-buy, and for the same reasons. There are a lot of changes under the bonnet of OS3.5 that will affect the way you use your computer, like the removed 4GB limit on hard disks thanks, in part, to hdwrench.library by that wizardess Joanne Dow. In any case, Haage & Partner have stated that unless enough people buy it, there won't be any more new releases or new Kickstart ROMs to go with them.





New GlowIcons and NewIcons on the left, old MagicWB icons on the right.



Workbench Prefs allows you to hide drives and set the border size for icons. You can even set a global stack.

DIY Desktop A1200

Reader Reviews



Phil's machine sits nice and neatly on his desk – shame his speakers look so messy!

Philip Edwards gets creative with a drill, some leads and a spot of glue

The towering-up of A1200 computers has become pretty common over the last three years, usually to accommodate a CD-ROM, a large capacity hard drive and a decent power supply. I considered a tower but as I keep my computer in my bedroom and haven't got much room I decided to try a desktop case instead.

The first step was to find a suitable desktop case. I turned down a free case because it was ugly and instead bought a nice new one with 3 x 5.25" bays, an internal hard drive and a floppy bay for around £30. A case, which is 39.5 to 40cms deep is just big enough. I actually cut a bit of cardboard out which was the same size as the motherboard with an accelerator and the nice bloke in the shop let me see if it would fit.

> **"After three days without an Amiga I was anxious to get it going. I pressed the green button on the front of the case and it fired up...**



The snag with desktop cases is that, unless you use a very wide case, the Amiga motherboard will have to be positioned from front-to-back. All the connectors previously at the back of the vanilla coloured case that the A1200 came in will instead be in the depths of the PC case. To get around this I had to chop about 50cms off the various leads that went into the back of the Amiga and, using various male and female connectors (Maplins total cost about £5), make short leads from the connectors at the back of the Amiga motherboard to the back of the PC case.





A desktop case requires a lot more work to fit your Amiga into, but the results can be worth it.

The PC backplane had to be removed because it was recessed into the case and was replaced by an aluminium plate. Fixing holes were drilled using the old backplane as a template. This custom back plane was then carefully marked, peppered with holes and then filed to make the slots for the various connectors. The next step was to chop the connector and about 30cms of cable from the power brick and connect it, using plastic connector block, to one of the many power leads coming from the 230W power supply that came with the case.

The motherboard came out of the old console case and the top shield was removed to fit the PC keyboard interface and the buffered 4-way IDE interface. Next, using screws through the existing fixing holes, short insulated posts were attached to the motherboard. These little 'legs' were then fixed permanently to the floor of the case using Araldite. The same technique was used to fix the small board carrying the standard Amiga LEDs behind a smoked window which had housed a digital display on the case when I bought it.

Making the leads to the new back plane was a bit of a pain. Using a cheap multimeter to check for continuity I started with the easy mouse, joystick, video and audio leads which took me about three hours (I hadn't soldered much before). As I had been three days without an Amiga I was anxious to get it going. After installing the IDE Fix software I pressed the green button on the front of the case and after one yellow screen it fired up... but the CD-ROM was not recognised. I then put the IDE lead round the right way and it worked.

It was a month later before the serial and parallel ports made it into my custom backplane and, as I don't need it, I still have not cut a hole for the PCMCIA slot which is conveniently placed. I am pretty pleased with the finished job, it has now run without trouble for 18 months, it looks neat and there is plenty of room for expansion. I am now thinking about a similar project on an A4000. The desktop cases are fine, it's just that the standard A4000 case is too small!

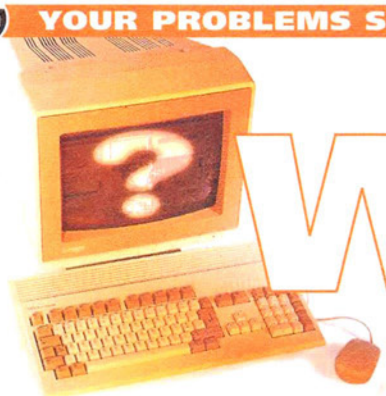
BENS VERDICT

Phil's been telling us about his desktop A1200 for a while at the SWAG meetings, but this'll be the first time that anyone's seen what a good job he's done of it.

Converting your A1200 isn't an easy job, but we'd be interested in seeing more reviews of DIY Amiga projects you've undertaken. Send us your wooden Amigas, your water-cooled ones, and your hot-air propelled machines. We want them all.



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NET METER 2.0
Keep your Internet habit under control with this cost meter. Tracks your Internet usage and counts the pennies. As sold for $14.99



Workbench

Simon Goodwin spreads enlightenment through another pile of posers sent by readers.

Email: amformat@futurenet.co.uk, putting Workbench in the subject line, or write to: Workbench • Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW.



AFCD45:-In_the_Mag-/Workbench

INDIGO DOESN'T

I use a 486 to get on the net as I've failed to get on using the Amiga having bought a modem and Netconnect (that's all I use it for… promise!) So I've linked the amiga to the PC using *Ami-PC* and put both machines in an Eyetech tower. What I want to know is, does my ISP (Indigo) have to support the Amiga or should I be able to connect anyway?

David Leacy, Eire.

You don't say why you failed to get on line with the Amiga. The vast majority of ISPs are quite happy to communicate with Amigas, and can't tell the difference between them and Macs, PCs, Archimedes, Unix or other systems running TCP/IP stacks. Tell us more about the problem, and we can advise further.

The exceptions are so-called ISPs that insist that you use their own software, rather than standard TCP/IP. In fact these, such as CompuServe and AOL, do not actually put your computer on the Internet, but just make a proprietary connection to their own system, which forwards a subset of Internet messages to and from you.

These only work with the proprietary Mac or PC software and filter out many services that a real ISP could provide. If Indigo is one of them, drop it and try someone else. We have other readers in Eire, so perhaps some can email with details of their favoured connection.

FLOPPY DROPOUT

My Amiga 1200 has recently developed a fault with both floppy drives (both nearly new). If I take a disk with some information on it, bring it up in *DOpus* and try to delete the information all I get are write errors starting in the 800's. When I format a disk either in Workbench or say, *SuperDuper*, it seems to format OK, but when I try to copy to it through *DOpus* I get the dreaded write errors again.

I have even tried fresh disks, but again I cannot copy onto them because of write errors. I took one of these problem disks to a friend who copied a program onto it without any problems. It seems as if reading disks is not a problem but, formatting or writing is. Could the chips on my 1200 board which control floppy operations be at fault?

Harry Gill
Ashton-under-Lyne

It certainly sounds as if the Paula chip is playing up, given that both your drives are affected. A few disk signals also go through CIA and Gayle chips, but if they were broken I'd expect more symptoms.

However I would check the drives on someone else's machine, and borrow an external drive for testing, before resorting to an expensive motherboard repair – the Paula chip is surface mounted in the A1200, as on the A600 and A4000, whereas it was socketed on older Amigas for easy swapping. Check your cables and connectors too; many wires are common to all drives so a poor connection could upset both.

It's just possible that you've got some gunk into both your drives, either from a faulty disk which was shedding material, or a spillage – wine, Coke and Ribena are bad news for drive mechanisms, and writing through a layer of goo is more problematic than reading. If that's the case, a wet (non-abrasive) disk cleaner might help.

You should be able to see any dirt on the heads, by carefully opening the case or inserting a dentist's mirror on a stick. In general it's not a good idea to clean drive mechanisms unless you know you've got a problem – gratuitous cleaning can harm the alignment and heads, and if your disks are good quality they should never leave detritus.

TOWER EXPANSION

I have a Power Towered A1200 with a 4 Meg Ram card, 2.1GB hard drive and a 24x CD-Rom Drive. I wonder, how do you add a second floppy drive to the tower? Do you buy an internal or external drive? And where on the motherboard does the data cable go from this second drive?

Secondly, is it on to add a second CD Drive, the IDE cable routed through the buffered interface, squeezed alongside the cables for the original CD drive and Hard Drive? Or will it all make my Amiga go pop? I believe I need a slower drive to run *IDE Fix's* CD[32] Emulator, as my 24-speed job seems to be too nippy.

Colin Davis
Swindon

LOST INSTALLER

My machine is an A1200 with a 32 MB Apollo 060 newly fitted, and 3.1 ROMs. My hard drive is empty but for the new 3.1 OS and *Opus5*. My problem is a message "unable to open your tool installer" when clicking *Magellan2* install. I also get this with the *MCP* program. Could I have faulty 3.1 disks?

John Pepper,
email

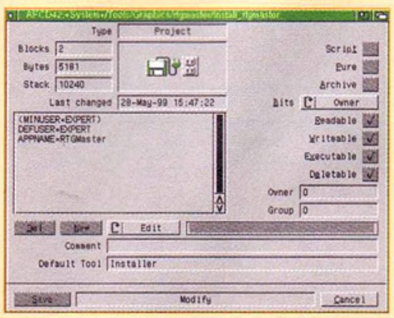
Since installing a new hard drive, most programs that have an install script give me the message 'cannot find your tool installer', although looking in the 'C' it appears to be there (both the original Workbench supplied 'Install' and 'Installer' from your coverdisk). I have tried reducing the max transfer to no avail, so what is happening?

F J Hudson
Derby

This is nothing to do with the MaxTransfer size! A lot of programs expect the installer to be in the SYS:Utilities drawer, which is where MORE and Multiview hang out. Unfortunately some programmers specify an explicit path for these system files, rather than let the Amiga search its default 'command path', which scans C: and Utilities, as well as RAM:, Prefs, the current directory and the System drawer.

I've ended up with a copy of Installer in both C: and SYS:Utilities; if you've got plenty of disk space for the extra 100K, that's the quick fix; there are ways to make a single file appear in several places, but they're not for beginners. The proper solution is to edit the .info file for the problem installation script, so that it simply specifies 'Installer' as the default tool, without any explicit path.

Select the icon with a single click in Workbench, then use the ICONS/INFO menu item to call up the corresponding icon information. If you change SYS:utilities/Installer, or whatever is preset, to specify just the program name, Installer, the system will look in the usual places (as specified by PATH in your startup-sequence, or later), and all will be well. If the file is on a CD you'll need to copy it off before you can make changes. Version 43.3 is in C: on AFCD45.

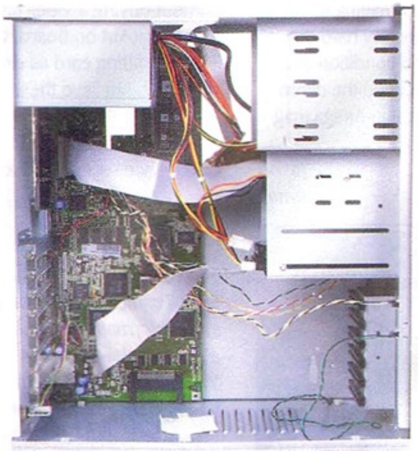


SwazInfo displays default Installer tool configuration.

There's no problem adding a second floppy drive to an A1200 tower, but you'll need to buy an external model. Amiga drives are unusual in that they can be controlled independently – which is how you can write four disks at once – and this means extra circuitry is needed to sift out the drive motor and selection signals.

The A1200's Gayle chip does this for the internal DF0: but additional drives need extra logic, which is one reason why they cost a bit more. Big box Amigas have decoding for DF0: and DF1: built in, which is why an external drive on an A4000 signs on as DF2: unless you tweak the 'DF1: enable jumper', on the motherboard, conveniently close to the external floppy port.

You can add a second CD drive without anything going pop, but keep the data cable as short as possible. The IDE interface is not designed to drive more than half a metre of wire, in total.



Adding drives is pretty much a doddle, but keep your cables short.

You may be able to slow down the CD enough by disabling the file system cache, as explained last month. Unfortunately some CD³² software was written specially for the Commodore console, and is dependent on the timings of that specific system.

GIF PROBLEM

I have spent a small fortune on CD clipart, and find that most of it is in GIF format, and will not load into my *Deluxe Paint* program. Why? I'm running an unexpanded A1200HD.

I have searched through back copies of *Amiga Format*, but to no avail. My son tells me that it is possible to load GIF as IFF images, and that I may have a program to do this on CD, but I can't find one. I can view GIF images on my A1200 using Viewtek. What am I do to do? I am 66 years old and am slowly losing my cool, please help.

Robert Pickering
Nottingham

GIF was a file format invented by CompuServe for dialup networking. It is concise but limited to 256 colours and uses a compression system eventually patented by Unisys, who now require programmers to pay a royalty on all their programs that support it. When this happened, GIF became obsolete and was replaced by PNG, which has all GIF's advantages and more, plu there are no fees to pay. However there are still lots of GIFs around, as you have found.

Feedback

FLOPPY OBSTRUCTION

In response to the letter 'FAULTY FLOPPY', in issue 127; I too suffered from this problem. I don't think it is a connector problem, as I checked the connectors fully and they seemed OK.

I think this problem arises from the drive heads being unable to fetch data from the drive. Either they're completely beyond repair, or the problem may lie with a bit of dust on the head. Transferring the floppy into a tower may cause this problem to arise. I fixed mine by clearing out all the dust from inside the drive. You'd expect some dust, some of these drives might be 10 years old or so!

Stuart Brown, by email

This possibility I discuss in another reply; Philip Corner has a more specific suggestion

With regard to your response to Paul Crellin's question about his floppy drive not working now he has moved his Amiga into a tower case, I had the same problem with my Power Tower, and I too thought that it was a connector problem, but in fact, this is due to the drive's new face plate obstructing the drive eject button. Because the button is directly part of the locking/eject mechanism, if it cannot pop out all the way when a disk is inserted, the disk sensor will register a disk being present, but it cannot make out any of the contents because it is held improperly. The main symptoms of this are that the eject button hardly protrudes at all, even when a disk is inserted, and the drive makes much softer sounds than usual. Myself, a friend, and someone I met at WoA have all had this problem. To fix this, do the following:

1. **Turn off your Amiga and pop out the drive blanking plate just below your floppy drive if there is a spare bay there.**
2. **Loosen the screws holding the drive in so it can be moved.**
3. **Insert a disk. Now push up on the drive from below at the front. You should hear a click as the disk locks properly. Your eject button should now be protruding more fully, too.**
4. **Screw the drive firmly into its new position. Check that disks now insert properly and the eject button is all the way out. You can now put the machine back together.**

Phillip Corner, Stockton.

Thanks for this tip Phillip; I hope it helps other Power Tower users as well as Paul. Similar things can happen when you reassemble the case of an A500, A600 or A1200. As a general rule, you can fix a lot of 'mechanical' problems by a close and careful inspection of the hardware involved. Power Computing warn that the floppy case may be distorted if you fit the four screws very tightly – so you must do it gently at first and tighten them a bit later

DSL pros and Cons

Regarding the mention by Thomas Braby in issue 126 regarding high-speed Internet access, DSL works great on Amigas. We are certainly fortunate here in Seattle for having it early on. All you need is an Ethernet card and a current TCP/IP stack like *Miami* or *Genesis*. I've tested both and bought Miami. You just configure it per your ISP's instructions and away you go! The ADSL modem is basically a router and if you're lucky, you can even get a connection that can do a bit of routing for you: USWest gives out Cisco 675 SpeedRunners.

While many people have lauded the cable modem as the great provider of fast access, here in Seattle it hasn't worked out that way. If your neighbour has a cable modem, you SHARE bandwidth, which only gets worse the more people in your area sign up. Moreover, you can't usually run a webserver on it as they block port 80 and may kick you off if you do so. Plus cable hookups are currently only set up to serve "surfing/download" fast but their upload speed is abysmal.

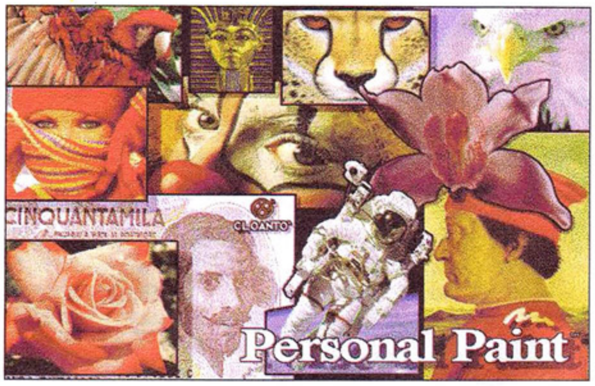
Kevin Orme, (amigau@oz.net) Seattle, USA

Thanks Kevin; alas DSL coverage is still very patchy in the UK – Bath still awaits the advent of ISDN – so reader feedback is most enlightening.

The Amiga's standard file format is IFF ILBM, invented by Electronic Arts, who later published DPaint. *It's not as concise, but supports more colours and is an extensible public standard. No one has to pay anyone to use it, and we can hardly blame EA for choosing it, as it's the Amiga standard, ideally suited to 'bitplane' graphics.*

Among others, Cloanto's commercial Personal Paint *package will load and save GIFs, and there are loads of freeware and shareware GIF conversion programs. A Workbench 3 upgrade added 'datatypes' which automatically convert alien file formats*

Continued overleaf ➡



Unlike Dpaint, Personal Paint is able to cope with GIF files.

into ILBM, but Electronic Arts never implemented it in their software, so you'll have to change programs, patch the program (not easy!) or convert the files you need.

As you can view GIF files with Viewtek, *you can save them in a format which* DPaint *will lap up. We put the viewer on the CD every month. The documentation reveals that Viewtek has a FILE option; last month I showed how to use it to convert JPEGs, and the same approach works with GIFs. Copy the VT command file to your C: directory, then (for a file called Bob) type:*

```
VT Bob.gif SAVE Bob.ilbm
```

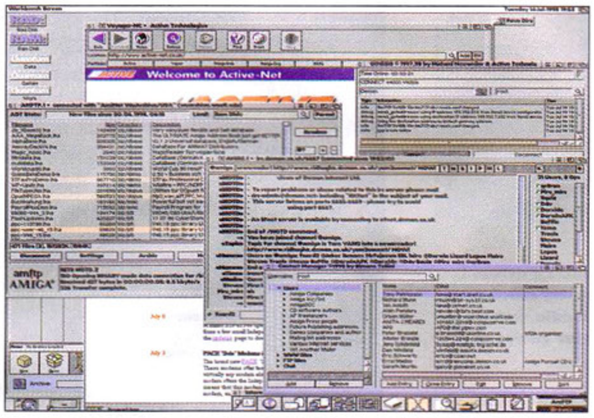
This reads Bob.gif, decodes and displays it, and saves it in Amiga format which you can load into DPaint. Viewtek *contains decoders for Amiga ANIMs and ILBMs, and alien GIFs and JPEGs. It can read other files via datatypes, so there are 200-odd more formats you can read, given the appropriate datatype installed on a Workbench 3 system. But that's another question...*

TOO LITE?

My modest Amiga consists of a tower with a buffered interface, 1.2 gig HD, 480 HD, ATAPI CD ROM and all the usual extras. I have a problem with *Netconnect lite*, a demo version which is limited to 90 days use before it times out and stops working.

I like the program very much and intend buying the full kit if only I knew if it won't screw up my system. Every time I install the lite version, it will after some time stop working and render anything that uses MUI useless. But that's not all! Other things will also stop working and eventually the whole system goes AWOL leaving me with the unwanted task of re-installing my whole workbench partition after formatting it first. I have checked time after time my hard drives to make sure they are in top condition and found no bad sectors. I obtained the demo from a covermount CD from an Amiga mag that bit the dust a while ago.

Jason
email



NetConnect doesn't have a history of crashing systems.

You're going back a bit, aren't you? I know of no such problem with the full version of Net Connect 2, *and in the unlikely event that your system is getting screwed up after the upgrade you'll have something else to blame – and someone to call for support on the commercial release. It sounds like you've got enough mileage out of the demo to make up your mind, and a time-limited demo is not meant to be reinstalled to circumvent the cutoff. Bite the bullet, and reward those developers.*

A600 FLASH

I have an A600HD with just the 1 MB memory expansion in the trapdoor. Without buying a Viper 630 accelerator with Fast RAM on board, can I plug in a PCMCIA fitting card as used by digital cameras? I believe these are rated at 5v. Am I right in thinking that this would be configured as Fast RAM? And would CC0.device recognise such an addition?

Michael Williams
Bognor Regis

The voltage is just one issue among many. Digital cameras use Flash RAM cards, which store information without power, but need a special, slow protocol to write to them. You might be able to read stuff a camera has written, given software to decode the data format, but would not be able to write to it; the card would work as ROM, not RAM.

Common Compact Flash and Smart Media cards for digital cameras need an adaptor to fit the PCMCIA slot. PCMCIA SRAM cards work, but unless you can get one second hand, perhaps from an upgrading A1200 owner, they're likely to

WORKBENCH 3.5

I've read about the proposed new OS for Amigas and understand that it requires Kickstart 3.1 ROMs. My A1200 has a Magnum '030 accelerator card, 16 Mb RAM, Canon BJC-240 printer and 120 Mb hard drive. An ATAPI CD-ROM 8 speed was added by Megatronix Ltd; my hard drive and the CD-ROM are in a desktop box. An IDE cable fitting has been soldered to the internal IDE interface, therefore a section has been cut out of the side of the A1200; the desk top box also has a fan and PSU. Will it be possible to fit new Kickstart ROMs and will I need to install WB 3.1 before being able to upgrade to OS 3.5?

As I have never seen an Amiga with OS 3.1 in operation, I'm not sure what advantages there would be. My understanding is that OS 3.1 has got software for a CD-ROM as extra to OS 3.0 and that's about the only difference.

Cyril Bunting
Cheltenham

It's best to make one new partition with **HDToolbox**, *put Workbench 3.5 on that, make it bootable with a higher priority than your original one, but lower than 5 (for floppies). Then you can use the early startup menu by holding both mouse buttons through reset, and boot from your old partition if it all goes horribly wrong. It's always worth keeping some hard disk space aside with* **HD** toolbox, *for 'scratch' partitions, swap files, temporary backups, alien file systems, alternative configurations and general experimentation. I have a dozen partitions on most of my big drives.*

Ideally a new upgrade would come with an updated ROM, but that would have meant at least another year's wait for exhaustive testing. Kickstart 3.1 was produced for CD³², so it has Commodore's simple CD support, but that's a minor feature, as you say. There are lots of technical differences between 3.1 and 3.0 involving interrupt timing, and retargetable graphics – many of these are 'hooks' for better expansibility. Kickstart 3.1 has fixes and optimisations that are not in Kickstart 3.0; it's much easier for Amiga International to produce the upgrade if it's designed and tested for a specific Kickstart ROM.

When I get the 3.1 chips, where and how do I put them in? To install WB3.1, do I need to reformat the hard drive? and if I do, how do I get those handy three partitions back?

Marty
via email

Kickstart 3.1 fits the sockets where Kickstart 3.0 is currently installed. You take out two chips and put two the same size in their place. You don't need to install Workbench 3.1 – you can go straight from Kickstart 3.0 in ROM and on disk, to 3.1 ROMs and 3.5 on disk. You don't need to reformat anything – perish the thought, this is not a Microsoft 'upgrade'!



Setting up a low-priority boot partition with HDToolbox.

cost more than your A600 is worth.

Five volt PCMCIA RAM cards are rare these days, especially in small sizes, and the Amiga port allows only 4 Megabytes of address space for PCMCIA. In any case the A600 is one of the few systems still in use that is not crippled by the slow access times of 16-bit PCMCIA. While I'm not as dismissive of A600s as John Kennedy, their expansion potential was deliberately limited by Commodore.

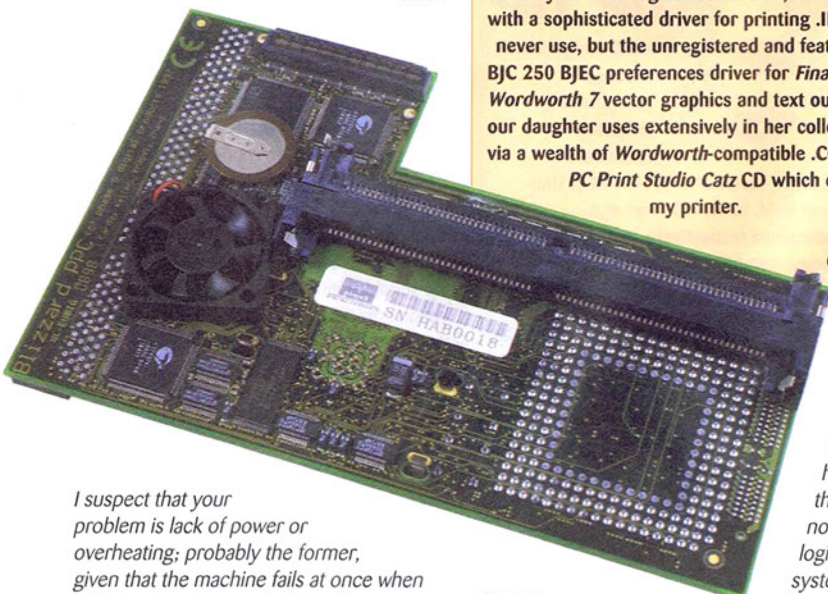
BAKING BLIZZARD

I have a BlizzardPPC 240Mhz 603e and 25Mhz 68040 for the Amiga 1200. It has two 32MB 60ns EDO SIMMs installed. It works flawlessly until I plug in my BVision. Then the A1200 refuses to boot at all. The IDE devices spin up as normal but I can not access the Early startup menu or the startup menu for the Blizzard.

I have the latest (30/3/99) flash ROM installed. If I remove both SIMMs on the Blizzard the card will boot though I suspect this is because the BVision is not initialised due to the lack of memory. I have tried several different SIMMs including a pair known to work on a 160 MHz Blizzard PPC.

I have installed the floppy power cable as instructed and tried booting with the IDE devices removed but to no avail. I have run out of ideas and would be most grateful if you have any suggestions.

Danny Shepherd
email



Blizzard PPC cards demand a lot of power. You really need a decent PSU to run one properly.

I suspect that your problem is lack of power or overheating; probably the former, given that the machine fails at once when fully-loaded. It generally helps if you specify your case and power supply when sending A1200 expansion queries. The 68040 and PPC demand about as much power, each, as the rest of the Amiga motherboard, and the stock A1200 supply is barely enough for an extra drive, let alone two fast processors, though some manage for a while.

64 Mb of SIMMs and the BlizzardVision are also hungry for power, whether the drivers are initialised or not – the fast video RAM and logic runs anyway. This sort of system needs to run in a tower, from a much bigger PSU – even an A500 one would baulk at this load.

If you're technically minded, check the voltage on the daughterboard. The Blizzard contraption draws more current from the A1200 trapdoor than that connector expects, and if the five volt rail sags below 4.8 volts, instability will result. Eyetech have an interim fix, involving squirting extra power in via the fan supply lines, and are advising phase 5 to make sure new boards do not suffer likewise.

Even if you've got a tower, I'd check the power supply – if that's OK, the last possibility is dodgy motherboard timing, which becomes apparent as you add more hardware and the rising and falling edges of signals skew under the load. In that case, you need to know your motherboard revision – printed on the board, under the 'Channel Z' codename, near the trapdoor connector, then talk to Alan at Eyetech (01642 713185) if it's anything except revision 1D1.

CANON MISFIRING

I have a Canon BJC 250 printer and registered *Canon Studio* printer driver software. Recently when I try and print out from *Final Writer 4* or *Wordworth 7* either in colour or black and white the size is halved in width, but the height remains correct. It used to print out OK. I deleted the whole program and reinstalled from scratch to no avail. However, if I print with the driver for a Canon BJ-10 which came on my original Workbench disks, the dimensions revert to those I have actually selected, albeit in black and white only.

The version number of the registered *Canon Studio* is 2.15 from HiSoft. The BJEC printer driver in my Prefs printer drawer stubbornly remains the one which came on the original free disk Canon sent me after I bought the printer, not updated by the registered version of *Canon Studio* as I expected. Then I discovered a Canon update to version 2.21c on an *AFCD*. This promised to update from BJC240 which was all that was available to me then, to my actual printer, the BJC 250.

The BJEC driver options updated OK from your CD but only to an unregistered version, which leaves me with a sophisticated driver for printing .IFFs which I never use, but the unregistered and feature-restricted BJC 250 BJEC preferences driver for *Final Writer 4* or *Wordworth 7* vector graphics and text output, which our daughter uses extensively in her college projects, via a wealth of *Wordworth*-compatible .CGM files on the *PC Print Studio Catz* CD which came free with my printer.

Bill Power
County Armagh



Printer drivers can often cause problems if they aren't configured correctly.

The latest Canon drivers are version 3.98D, on Aminet and our CD. These are licensed by the printer manufacturers.* Canon Studio *is a front-end for those drivers, which allows 24-bit colour printing from a separate application; that is what you bought from HiSoft. Programs that use standard Workbench driver support are limited to 12 bit colour; new applications are needed to take advantage of the custom Canon drivers.

The first thing to check is that graphics print correctly from* Canon Studio*. If this is the case, your problem is in the* Final Writer *or* Wordworth *configuration. Otherwise you need to install the new drivers and try again. If that fails, why not revert to the drivers you were originally using? If you'll still stuck, call Steve Marriot at HiSoft (01525 718181) with your* Canon Studio *registration number, and he'll guide you through the update process.

IF YOU HAVE A QUERY

We welcome your queries, but make sure you submit them correctly:

- **Send email to amformat@futurenet.co.uk with the subject "Workbench".**
- **Send letters to the usual *AF* address (it's on page 94 if you need it), and make sure you put "Workbench" on the envelope.**
- **Include details about your machine, such as what processor and how much RAM it has.**
- **Do your best to describe your problem succinctly.**
- **Make sure it wouldn't be easier to contact the dealer you bought the item from and ask them.**
- **Be concise!**

Creative

The complete beginners guide to... Getting On-line

Dedicated surfer Ben Vost gets to grips with URLs, TCP stacks, ISPs and plenty of other TLAs



We've given another new look to the introduction to this, the Creative section of the magazine. I was hoping that the awful mug-shot would go, too – but, alas, it was not to be.

The benefit from this re-organisation to you, the readers, is that we've managed to cram in more editorial pages than ever. Relatively speaking, that is. This section alone has a whopping 14 fact-packed pages.

Last issue we kicked off a new series of Complete Beginners Guides. The first installment got to grips with our cover CD and, from the feedback we've received so far, was well appreciated by a large number of readers. Hopefully, we can reprise this with our next installment – a beginner's guide to getting your Amiga online.

Remember to send your suggestions for future tutorials to the usual address. For all those requesting a JavaScript one, this will be starting next issue.

CREATIVE INDEX

The last great hurdle Amiga owners face once they've got themselves a CD-ROM drive and maybe a graphics card is getting online. This should be as easy as obtaining your basic equipment and not too costly either, but since it remains a recurring topic of discussion, we thought we'd go through it all once more.

Before we even start with the modems, TCP stacks and ISPs, the first thing to think about is how suitable your machine is for actually getting online. If you don't have a hard drive, you're out of luck; only having the standard 2MB chip RAM is going to make life hard for you; and not having an AGA Amiga, or a graphics card, is going to make the web either a dull-coloured and heavily dithered, or very lo-res experience.

TOP TIP

Most Amiga email packages recognise the following characters as typestyle modifiers: *, /, # and _. They mean bold, italic, coloured and underscore respectively, and you can change a word to one (or more of these styles) by enclosing it with the modifiers, like so: *bold*.

> A graphics card will speed up serial transfers, give you a higher resolution display with more colours and in general be faster than AGA

Other than that, pretty much everyone has a machine capable of being online, and if you're willing to compromise on what you'll get from the net, you can make do with even less.

ESSENTIAL AMIGA WEBSITES

Amiga Web Directory – http://www.cucug.org/aminew.html
Amiga.org – http://www.amiga.org/
Czech Amiga News – http://www.realdreams.cz/Amiga/
Amiga Network News – http://ann.lu/
AmiSITE – http://www.amisite.freeamiga.org/
Amiga – http://www.amiga.com
Amiga Format – http://www.amigaformat.co.uk

TOP TIP

There are plenty of other topics with regard to the net - such as FTP, IRC, newsgroups, ICQ, mailing lists, RC5, online gaming and many more, but these are all beyond the scope of a four page feature like this. Once you get online you'll find out about them all.

THE ESSENTIALS

What will you need to get online? A phone line and modem are obviously essential, but saving money by buying a secondhand modem slower than 33.6K is actually going to cost you more money in the long run since the slow speed of the modem can dramatically increase your phone bills. However, this is the only capital expenditure you'll have to make, at the lowest level. You can get a better hardware setup without spending much more money and a new serial port can be considered one of those essential purchases if you spend a great deal of time on the net. If you have a big box Amiga, then a graphics card will also speed up serial transfers, give you a higher resolution display with more colours, and in general be faster than AGA, but you'll also want to get a good monitor to go with it which will drive up the cost.

The software side of things is, as ever, slightly more complex. All the software you need to get online can be found on our CD every issue – in the +System+/Tools/Net drawer, but it's only a small selection. From here, you'll want to install the software that actually gets you online – a TCP stack (either *Genesis* or *Miami*); a web browser

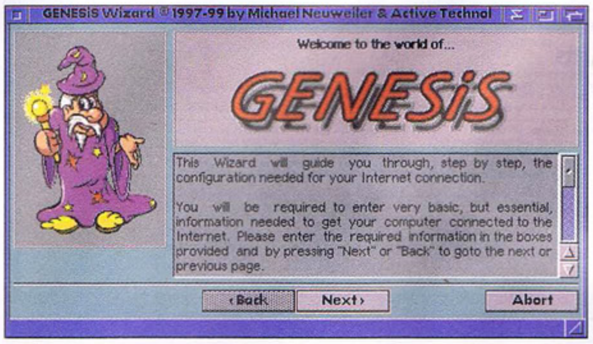
TOP TIP

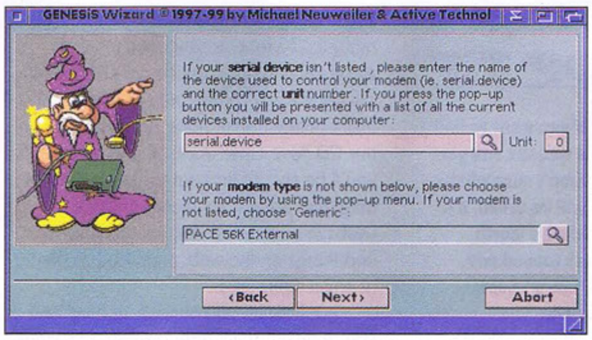
When writing an email quoting a website, always put the complete website address including the http:// part. That way other mail packages will recognise what you entered as a URL and allow you to double click on them to start a web browser with that page.

TOP TIP

Downloading software. The Amiga has the single best repository of free and shareware software going. It's called the Aminet, and if you're looking for a bit of software to do something, this is where you should look. Check out the URLs at the end of this tutorial.

(either *iBrowse*, *Voyager* or *AWeb*) and the email package *YAM* (bear in mind you'll require *MUI* to be installed for four out of six of these – *MUI* is used by most internet software). However, there are plenty of other options out there which you can discover over time. One of the best





As if by magic, a connection appeared. Genesis Wizard makes getting online a painless experience.

solutions for newcomers to the net is Active Technologies' *NetConnect* package (which should be at version 3 by the time you read this). This complete kit comes with all you'll need (and probably some bits you'll end up never using) for the Internet and is so easy to set up it defies belief. Really, if you're scared of dealing with the net, this is without doubt the best all-in-one solution, but you'll have to pay for the privilege. According to the Active ad in the last issue of *AF* (AF128), *NetConnect 3* costs £49.95, and that's without postage and packing. Other than that, you're bound to get a great deal of advice from people who'll tell you that such-and-such a package is far superior to what you're using, but it really doesn't matter to begin with. The most important thing is to get you online. Once you're comfortable dialling up and connecting, you can start looking at alternatives, although some people never do – content with what they have.

ISPs

How you actually go about getting online is the next topic that you need to know about. There are a great many scare stories about ISPs actively telling Amiga users that they require *Internet Explorer* or *Netscape* to be able to access the net, and since these don't work on the Amiga, the Amiga can't

Continued overleaf ➡

TOP TIP

Have a look through your TCP stack's settings. It's a good idea to put your domain in the domains list. Sounds bizarre? At home my email address is ben@subway.demon.co.uk, and if I put demon.co.uk into the domain list, it means I can send email to anyone by simply putting their name and hostname in the address - for instance, I can send mail to tess@tickle, instead of tess@tickle.demon.co.uk.

What's it mean?

Before we start, do bear in mind the fact that although these are good to know, 90 per cent of them are unnecessary to the day to day operation of your machine on the net!

TLA
Three letter abbreviation (or acronym). The internet is full of jargon and a lot of it has been made into shorter three letter forms to make it easier to write if not necessarily to say.

FAQ
Frequently Asked Questions. If you join a mailing list, like afb, you should always hang around for a bit before you post so you can get a feel for what goes on, or better yet ask if there's a FAQ. There often is...

ISP
Internet Service Provider. The people (and machines) that make your connection to the internet possible.

URL
Uniform (or Universal) Resource Locator. Basically, a website address.

POP3
Post Office Protocol. How you get mail to your machine. Not to be confused with POP or vPOP. You send mail using SMTP.

POP
Point of Presence. Basically where the phone number you dial to get online is located. See also vPOP.

vPOP
Virtual Point of Presence. When an ISP uses an 0845 number to dial in to, this is a vPOP.

SMTP
Simple Mail Transfer Protocol. What you use to send mail from your machine.

Smiley
A much-reported email shorthand for emotion. Uses a combination of punctuation marks designed to be viewed with the head tipped to one side: :-) (happy), :-((sad), ;-) (winks) and so on.

TCP
TCP is short for TCP/IP (which itself stands for Transfer Control Protocol/Internet Protocol). A TCP stack is the software you use to connect to the net. *Miami* and *Genesis* are the two main examples of TCP stack on the Amiga.

ISDN
Integrated Services Digital Network. ISDN is a digital version of your modem, which wastes a lot of bandwidth converting digital signals to analogue ones and back again. ISDN works fine on the Amiga and instead of getting the maximum modem connection rates of 56K on your Amiga, you'll get 64K and the connection time will be a second in comparison to the 15 or so you can expect if using a modem.

.sig
A .sig (or, in full, .signature) is a little bit of text automatically added to the bottom of your emails. They can be humorous, offer platitudes from famous philosophers or just publicise your website.

TOP TIP

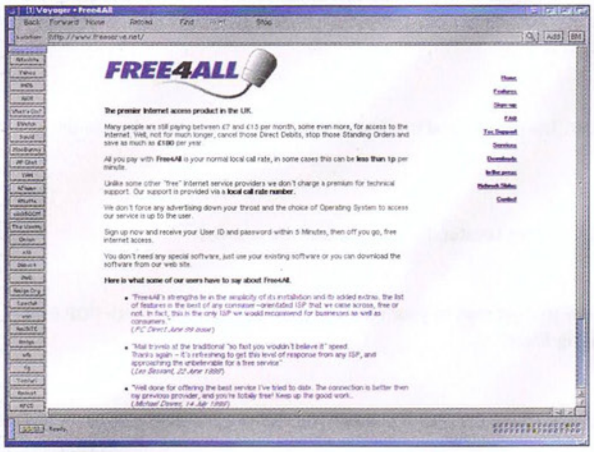
If you use DOpus Magellan, you'll find that it has excellent FTP facilities built-in, which makes getting files from Aminet or elsewhere a snap.

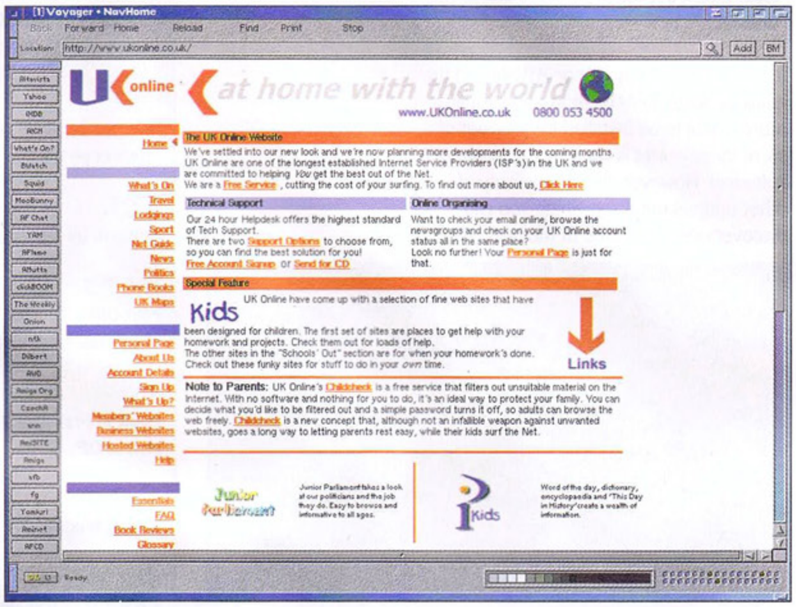
TOP TIP

If you have trouble getting online, even with all this help, call one of the Amiga Angels who have an email address – they'll almost certainly be able to help.

TOP TIP

Most things on the net are case dependant, which means that http://www.AmigaFormat.co.uk isn't the same as http://www.amigaformat.co.uk and probably won't get you to our website.





Free4All (above) and UKOnline are not only free ISPs but they also offer Amiga technical support.

possibly be put online. The number of ISPs that actively support the Amiga in this country can probably be counted on the fingers of, well, two hands. If you decide you really, really want to go for an ISP that doesn't support the Amiga, then the only things you actually require from them is a dial-up number, an account name and a password. You might actually want other details, but these three and either *Miami Init* or the *Genesis Wizard* will make use of this basic information to find the rest out for you automatically. We wouldn't recommend using alternatives to these two as your starting internet software package.

> Once you're online you'll be able to ask for the advice of plenty of other users and most of the Amiga Angels on our CD have email access

Programs like *Termite* or the original *AmiTCP* take a lot more setting up.

Once you have those all-important details from your ISP, there are a couple more you'll want. Get the incoming and outgoing mail server names (you'll almost certainly find these on your ISP's website). You can set these up in your mail package so you can send and receive email – probably the internet's most important application – and you're ready to go. There really isn't a lot else you need to worry about. Once you're online, you'll be able to ask for the advice of plenty of other Amiga users online (most of the Amiga Angels on our CD have email access), and other stuff you'll be able to find out for yourself. This magazine always has plenty of URLs (website addresses) that you can use to find things on the web, and also has plenty of email addresses.

But how do you choose an ISP? Well, if you're on a budget, you can plump for one of the free ones – there are over 80 in the UK alone, and some actually offer Amiga technical support – specifically UKOnline, Free4All and Abel Gratis (Freeserve has Amiga people in at its top level, but doesn't really offer Amiga support) – but otherwise you can choose one you pay for. Often the ones you pay for offer free technical support and tend to be somewhat more reliable, mainly because the free ISPs are

TOP TIP

If you want to find a website and you aren't sure what it will be called, it's always worth trying the company name topped and tailed with "www." and ".com". Some browsers will do this for you automatically.

TOP TIP

REN numbers are the standard way of checking how much load you can have on a phone line. Having too many (you can't have more than four), or having too much cable between your modem and the phone socket can result in dropped lines and bad connection rates.



Freeserve is the most popular free ISP on the net.

TOP TIP

If you spend a lot of time surfing the net, and your phone bills are high, it may be worth your while investing in Home Highway. Your Amiga is perfectly capable of using most external ISDN terminal adaptors – *Miami* and *Genesis* treat them just like modems.

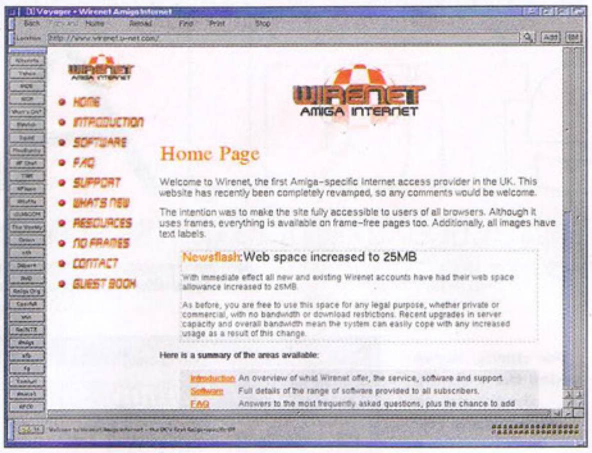
TOP TIP

If your machine isn't going fast enough for your tastes, it may be because the amount of processing power your built-in serial is taking is too much. Getting a third party serial port will free up your processor and give you much faster transfer speeds too.

overwhelmed with users. The pick of the bunch for Amiga owners has to be Wirenet, run by Neil Bothwick who can often be seen in these pages writing about the internet for us.

The last great aspect that people fear is the cost of going online. They hear horror stories about paying £150 per month on phone bills, huge hardware costs and other such tales of madness, but in truth the net doesn't have to cost you very much at all. The phone bill is the first myth to dispel. All ISPs offer local call access, so dialling up to get your mail or cruise the web is never going to cost you more than calling your friend round the corner. You can also set your BT options to give you the maximum discount for your internet account – expect to pay (right now) 0.8p a minute for calls to your ISP at the weekends, 3.6p per minute at peak rate and 1.2p per minute off-peak – hardly bank-breaking stuff, especially if you're only online for only a minute or two getting mail – you can save your web browsing for the weekends. In addition to these figures, there are places you can go to get even cheaper local calls (sometimes free ones), but these usually require a true local number – most ISPs use 0845 numbers which are charged at local rate, but aren't actually local numbers. Again, Wirenet offers true local number access for most of the UK, but isn't free itself. In essence, you can get online with a free ISP and get all the hardware and software you require for less than £100.

Getting online is becoming increasingly necessary for support and things to do when the market is as small as Amiga's. Companies can't afford toll-free telephone lines for support, but sending an email can often convey more info, and only costs a fraction of a penny. Amiga users are spread all over the globe, but can easily come together through email, or other services on the net. Overall, getting online will open up your Amiga just like getting that hard drive or CD-ROM drive did. A connected Amiga is a powerful computer.



Wirenet is an Amiga-only ISP where you can guarantee good service.

TOP TIP

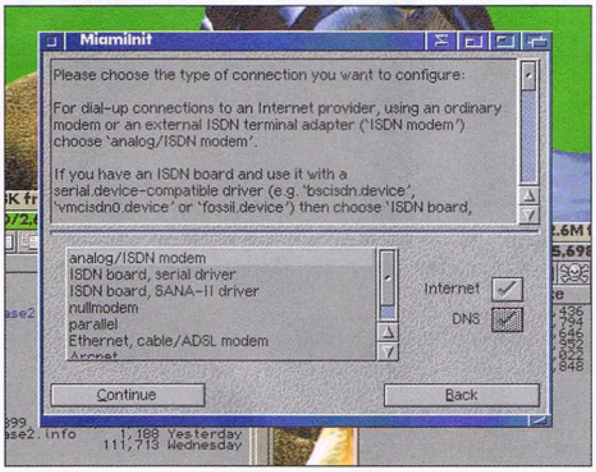
Net software on the Amiga is pretty interchangeable. If you bought *NetConnect*, there's no reason why you shouldn't use a different web browser or email package with it if you prefer.

TOP TIP

If you have trouble signing up online with an ISP, it would probably cost you less money to go to a cybercafé, use their machines and sign up to your provider online. You can then go home and make use of the settings you noted down at the cybercafé.

TOP TIP

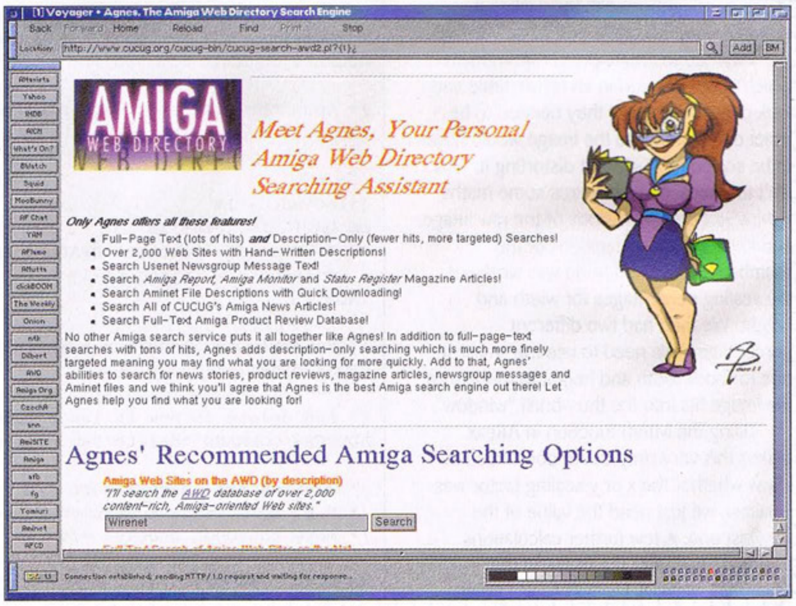
ADSL (a new permanent way to be connected to the net) will soon be with us. Unlike a modem or an ISDN terminal adaptor, you'll need to equip your Amiga with some kind of ethernet card to make use of it.



Setting up Miami is a breeze thanks to MiamiInit.



YAM is the email package of choice for thousands of Amiga users. You can find it on our CD every issue.



The Amiga Web Directory's search facility is very useful for Amiga websites.

ISP WEBSITES

We know you won't be able to visit these until you've got online – creating a chicken and egg situation – but if you're going to sign up online at a cybercafé, then having these details will be important.

Wirenet – http://www.wirenet.u-net.com/
Free4All – http://www.free4all.co.uk
UKOnline – http://www.ukonline.co.uk
Demon – http://www.demon.net
Freeserve – http://www.freeserve.net

Useful ARexx

Nick Veitch gives a practical example of using ARexx, with this program for making thumbnails

ON THIS MONTH'S CD AFCD45:-In_The_Mag-/ARexx

As promised, this month we are making an entire script to perform a specific task. The object of this first project was to create a script to automatically generate thumbnail images of any image files found in a given directory.

For clarity, we've added the ¶ sign in the listings to show where you need to enter a Return.

Contents:

If you've missed any tutorials in this series, call our back issue hotline on 01458 271102.

You could write this script for virtually any graphics software that supports ARexx. For this project I decided to use ImageFX

You could write this script for virtually any graphics software which supports ARexx. For this project I decided to use *ImageFX*, as it is probably more popular now than *ADPro*, and also has great ARexx support and good documentation. However, it would be easy enough to adapt it to work for other programs, as long as you substitute the relevant commands for the software you are using.

The way to approach a project like this is to break it up into easy to handle chunks. Finding out the filenames, loading the image, working out the scaling factor, making the backdrop, pasting the image and saving it. The first part of the program was easy, because we've done it before (when we made the automatic image viewer). In fact, I added this part of the program last, because I knew it would work and it was easier to test the rest of the program when dealing with just one image. Loading the image is straightforward, but scaling it required some thought.

I wanted to create proper thumbnails which could be used in an HTML table and look okay. This meant they needed to be exact dimensions, so the image would have to be scaled to fit without distorting it. This isn't too hard, it just requires some maths. Having got the dimensions of the raw image, and knowing the dimensions of the thumbnail, all we had to do was work out the scaling percentages for width and height. We then had two different percentages. We need to use the smallest one for both width and height to make sure the image fits into the thumbnail "window".

Using the MIN() function in ARexx makes this very simple. We don't need to know whether the x or y scaling factor was smallest, we just need the value of the smallest one. A few further calculations enable us to centre the image in the thumbnail window. I wasn't sure if I had done all the sums right to bein with, which is

Thumbnail Generator Listing

```
/* make thumbnails */ ¶
/* USAGE: rx makethumb.rx pathname. */¶
/* E.G.: rx makethumb.rx Work:images/renders/ */¶

OPTIONS RESULTS¶

/* define variables */¶
/* thumbx, thumby are dimensions of thumbnail to create */¶
/* tempname is the name of the temporary file list */¶
type = "JPG"¶
thumbx = 160¶
thumby = 120¶
tempname = "list"¶

/* get the directory path of the images */¶
PARSE ARG  dirname¶

/* strip extraneous spaces and quotes */¶
dirname = STRIP(dirname)¶
dirname = STRIP(dirname,"b",'"')¶
dirname = STRIP(dirname)¶

/* create a list of files in the temporary file in RAM */¶
commandline = "list >ram:"||tempname||" "dirname"#?.jpg files LFORMAT %P%S"¶
ADDRESS COMMAND commandline¶

/* Open the file and read in names to filename compound variable */¶
inname = "ram:"||tempname¶
q = OPEN("infile", inname, "R")¶

filecount = 1¶
DO UNTIL EOF("infile")¶
   filename.filecount = READLN("infile")¶
   filecount = filecount+1¶
END¶

/* Remember to close the temporary file */¶
CLOSE("infile")¶

/* And delete it now it isn't needed */¶
ADDRESS COMMAND "delete ram:"||tempname¶

/* Address the ImageFX port */¶
/* N.B. Here we have assumed it is running, you might want to make some */¶
/* more thorough checks! */¶

ADDRESS 'IMAGEFX.1'¶
```

Continued right ➡

Thumbnail Generator Listing continued

```
DO loop = 1 to filecount-2¶
   /* Load image using ImageFX's load buffer command */¶
   LOADBUFFER filename.loop FORCE¶

   /* Get the attributes of the image */¶
   GETMAIN¶

   PARSE VAR result  '"' name '"' width height depth aspectx aspecty dpix dpiy redp
greenp bluep transp numcolours layers ¶

   /* Output the name and dimensions to the console */¶
   /* at least you'll know something is happening! */¶

   SAY "name:" name¶
   SAY  width "x" height¶

   /* Copy the main image to the Swap Buffer */¶
   Buffer2Swap¶

   /* Clear the main buffer to a neutral colour */¶
   ClearBuffer FORCE 80 80 80¶

   /* Crop the buffer to the desired size */¶
   CROP 0 0 thumbx thumby¶

   /* Swap the buffers */¶
   SWAP¶

   /* Do some calculations */¶
   xfactor = (thumbx/width)*100¶
   yfactor = (thumby/height)*100¶
   /* xfactor and yfactor are the percentages required to scale the */¶
   /* original image to fit the thumbnail frame */¶

   /* we need to choose the smallest percentage, which is easy using */¶
   /* Arexx's MIN(number1, number2,....) function */¶
   factor = MIN(xfactor,yfactor)¶

   /* The TRUNC() function is used to give integer results */¶
   /* as an image can't be 123.456 pixels wide! */¶
   newwidth = TRUNC((factor/100)*width)¶
   newheight = TRUNC((factor/100)*height)¶

   /* we also need to determine the x,y co-ordinates the image will */¶
   /* occupy in the thumbnail window */¶
   xstart = TRUNC((thumbx-newwidth)/2)¶
   xend = xstart+newwidth¶
   ystart = TRUNC((thumby-newheight)/2)¶
   yend = ystart+newheight¶

/* DEBUGGING INFO */¶
/* say width newwidth xstart xend xfactor factor */¶
/* say height newheight ystart yend yfactor factor */¶

   /* scale the main image to the required size */¶
   SCALE newwidth newheight Smooth¶
   SWAP¶

   /* we now pick up the image as a brush */¶
   SWAP2Brush¶

   /* Now activate IMageFX tiled fill mode and fill the box */¶
   Fillmode TILE¶
   FILLEDBOX xstart ystart newwidth newheight¶

   /* generate a new filename */¶
   name = filename.loop¶
   newname = left(name,(length(name) - 4)) || "_tn." || type¶
   say newname¶

   /* Save the thumbnail image under new name */¶
   SAVEBUFFERAS JPEG newname FORCE 85 PROGRESSIVE¶

   /* Clear the buffer, ready for the next image */¶
   KILLBUFFER¶
END¶
```

why there is a debugging section in the script (now commented out). Basically, this just spewed out all the values so I could check them by hand and make sure I was calculating the things I wanted to calculate. This is a really useful thing to remember when debugging your own code.

We also needed to use the TRUNC() function to make sure we were dealing with integers. The scaling values could be 17.56312% if necessary, but you can't have 120.456 pixels! TRUNC(variable) automatically returns the integer value, but you can specify a number of places after the decimal point, e.g. TRUNC(12.45187, 2) would return 12.45.

Generating the new filename isn't difficult, as we know the originals all have a ".jpg" extension, though you might have to make changes here if you want to use different types of files.

As it stands, this script is simple and quick, but you can easily improve it. I have made some suggestions in the boxout here.

If you have any comments, suggestions or queries, please get in touch and I'll see if I can help!

MODIFICATIONS

If you want to try and make this script even better, here are some things you could try:

■ BULLETPROOF IT

At the moment there are no checks to make sure that ImageFX is running, that the supplied pathname actually exists, that the tempfile has been successfully created in RAM, and there is no protection for errors which might occur in ImageFX (e.g. if a file is garbled and won't load).

■ ADD MORE OPTIONS

You could, for example, allow the user to choose the background colour of the thumbnail. Or you could use ImageFX's GUI tools to put up a requester for the initial pathname if none is supplied. One thing worth considering is allowing different file types to be output (PNG or GIF perhaps). This wasn't implemented here because they have slightly different formats when saving, but it could easily be handled by a SELECT switch.

■ SPEED IT UP

This probably isn't the fastest way to create thumbnails, though it's certainly faster than doing it by hand. One thing that would certainly be worth doing is checking that the image you have loaded is bigger than the thumbnail size – if it isn't, there's no point in making a thumbnail, and you can skip that file. There may be a less straightforward, but simpler way to scale the image and put it on a background. I didn't investigate that, I just used a method which I knew would work.

Program Perfection

Richard Drummond gives you some tips on bullet-proofing your software

ON THIS MONTH'S CD: AFCD45:-In_The_Mag-/Program_Perfection

To ensure your software is going to run in the real world, it has to be able to cope with the unexpected – events which are beyond the control of your software, such as a lack of memory or a user's incompetence. For want of a better term, I'll call such events errors, but I don't include in this category programming errors such as incorrect algorithms.

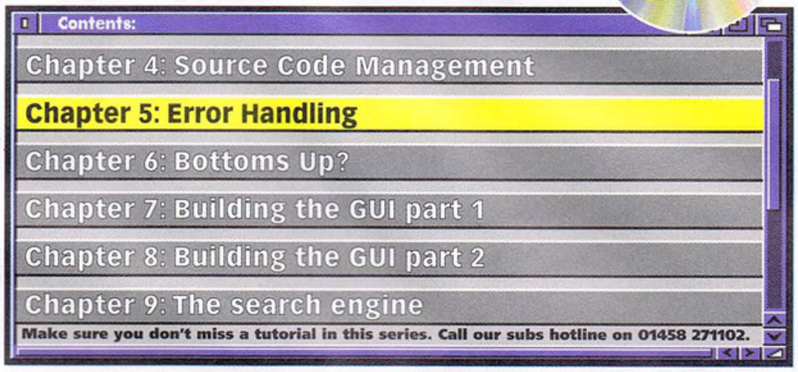
TO ERR IS HUMAN

Good software is robust. The most important requirement is that when a program encounters an error it should not crash. Sounds obvious, doesn't it? But protecting your software against errors requires care. You have to think ahead and ask yourself what can go wrong at any point. Always check your assumptions and verify that you got what you asked for. As with all aspects of software design, though, there is a trade-off. If you spend too many resources on checking and handling errors, the rest of your program will be likely to suffer. The degree of robustness you require will depend on the program and its intended use. And of course, you can never make it 100 per cent foolproof.

> **Error messages should be helpful, describing what went wrong at a level the user can understand and even suggest a remedy**

The other important requirement is that the user should be informed of any problems. There is nothing worse than some application failing to start up or some function failing without being told why. Error messages should be helpful, describing what went wrong at a level the user can understand and perhaps even suggesting a remedy. Cryptic error codes alone are not much use nor are reports such as Mac users frequently see, 'An error occurred because an error occurred'.

Errors can be divided into two classes: fatal and recoverable. A fatal error, as the name implies, mean something so drastic has happened that the program cannot continue executing. Typical causes are missing system resources required by the program, whether software components, like a shared library or device, or hardware, like an FPU. This kind of error will most frequently occur during program start-up, since this is when the majority of resources are allocated. However, if a fatal error occurs during the main body of a program, the program should still exit gracefully, giving the user the option to save any data if possible.



In contrast, a recoverable error is one where normal program execution can continue, maybe after some tidying up. As an example, imagine the user wishes to save a file to a drawer which doesn't exist. This will generate an AmigaDOS error when attempting to open the file. It's not a critical problem, though. The program could simply give the user the option of creating that drawer or changing the file path before trying again.

PASS THE BUCK

In a modular program, it is more than likely that the module which has responsibility for dealing with an error situation is not the one where the error originated. Therefore, a strategy is needed on how to communicate errors between modules. More advanced language like C++ or Ada have exceptional handling facilities which let you abstract error-handling away from the normal execution path of your code. In C, as always, you have to do everything the hard way.

There are two related problems to solve in flagging an error as the result of some function: how to signal failure and how to denote what caused the failure. I have separated these two issues, because it is more efficient to have a simple test for failure and then examine in more detail the cause of the error. For example, if a procedure has no return value required by its algorithmic function, you can use the return value to pass back an error code – a zero value denoting success and any other value representing an error code. Checking for failure then translates into a quick non-zero test.

The problem becomes more difficult if a function already has a return value, perhaps as a result of some allocation it performs, etc. Different strategies here can be illustrated by examining various OS library functions to see how they do it. One method is to have a global error variable. For example, consider the dos.library function `Open()` which opens a file for read/write access. On success this returns a pointer to an allocated filehandle data structure; on failure it returns zero. Checking for failure is merely a test for zero. The cause of the failure can be retrieved by accessing the dos.library global error code which is set to an appropriate value by the `Open()` function. This is performed by a call to `IoErr()`.

The other way is to return an additional error code by means of a parameter of the function. Since the parameters of a C function cannot be changed by the function itself, this must be performed by reference. Consider `OpenScreenTags()`. This takes a list of tags which describe the screen to be opened and, if successful, returns a pointer to the freshly opened screen. Here, a zero denotes failure. Failure here could have any number of causes: lack of memory, an unsupported screen mode, etc. The exact cause of the error can be found by supplying an extra tag with a pointer to a ULONG to `OpenScreenTags()` in which an error code can be returned.

START ME UP

In normal C programs, certain resources will be obtained for you by default by the standard start-up code. At the very least,

ON THE LEVEL

Many programmers forget that the `main()` procedure of a C program actually returns an integer value. This value is interpreted as an error level by AmigaDOS – a measure of the success or failure of the program itself. The standard C `exit()` function also takes a similar value as a parameter. Calling this function has the same result as explicitly returning from `main()`.

IDENTIFIER	VALUE	MEANING
RETURN_OK	0	Success
RETURN_WARN	5	A warning only
RETURN_FAIL	10	Something went wrong
RETURN_FATAL	20	Complete failure

If you do not specify an error level for your program, either by simply falling out the end of `main()` or by returning with no value, DOS will be given a garbage value. This is not good, especially if your code was started from a shell script.

If the error level is anything other than OK, more information can be gained by querying the DOS error code (e.g., by examine the DOS variable Result2). Therefore, if your program returns a non-zero error level, it should also set the error code before exiting. This can be done by calling the `SetIoErr()` function and should provide the user with an error code appropriate to the fault that occurred. The error levels and codes are #defined in the system header <dos/dos.h>.

this will supply your program pointers to the exec and dos libraries. Other libraries can be explicitly opened by your code, or opened automatically by some magic code linked in at compile time – if your compiler supports such a facility. However, blindly accepting what is given to you by the minimalist start-up code is not always the best policy. For one thing, failures will be generally flagged only by program termination. For another, most compilers will not allow you to specify which version of a library is automatically opened.

For a bomb-proof program it is best to take things into your own hands. The exec.library is the only one which does not need to be opened first to be used. Since it is a ROM resident library, checking its version number provides a handy way of finding out which OS version a host machine has. This can be accessed via ExecBase's library node. For other libraries, you should open the required version yourself and report failure with a corresponding error message before termination.

CPU SPECIFIC

One resource that is often ignored is which processor of the target family the program is being compiled for. For example, trying to run 68060 code on a plain 68000 will be liable to cause an illegal instruction exception and, at best, your program being suspended. Most recent Amiga compilers will produce code optimized for a particular 68K series chip. Again, most start-up code will not verify that such code is actually being run on the appropriate CPU. However, you can perform this yourself by checking the `AttnFlags` value in ExecBase. Failure here is again fatal. A similar principle applies if your program is compiled with inline FPU instructions.

A point to remember when exiting due to a fatal error is that you free all the resources that you obtained. To make matters easier, you can perform your own tracking on resources. For example, the standard C function `atexit()` maintains a stack of functions to be called at exit time. For each allocation, you can add a corresponding function to this stack which frees that allocation. When your program finishes, all the functions on the stack up will be called automatically and all your resources will be freed in the reverse order

It's really annoying when you leave a program running by itself only to return half an hour later to see it hasn't even started yet

in which they were obtained. Another way, if your compiler supports it, is to use the compilers global constructor/destructor facility to specify initialization and clean-up function pairs. Each constructor function will be called automatically before your `main()` procedure and the destructor at `exit()` time.

This last method has the disadvantage of not being portable between compilers. The advantage is that it does require you to explicitly call these functions – a particularly useful feature when it comes to your own modules. For example, any initialization code that is required for the functioning of a module – say, memory allocation or the adding of a BOOPSI class to the system list – gets performed simply by linking the module's compiled code to your project.

PLEASE SIR

Thought must also be applied as to how your software reports errors. If your application has a GUI then you should report errors with a GUI, for example, by using standard system requesters. If your program is to be used only from a shell than errors should be output to the standard error stream. Even if your program has a GUI, if it is possible to use it in a batch mode, you should supply an option to suppress requesters. It really annoys me when you leave a program to churn away by itself, unwatched, only to come back half an hour later to see it hasn't even started yet because it is waiting for you to confirm some perfectly obvious action with a requester.

If your application runs on a screen other than the default public screen, you should ensure that any requesters it puts up appear on that screen. This applies to system requests that you have no control over as well as your own custom ones. For example, the dreaded 'Please insert volume X' request, which appears when trying to access a logical device which is not mounted, usually appears on the default screen. It is not always obvious which program was the cause of such a request, especially if it is running on a different screen. This can be easily remedied by changing the `pr_WindowPtr` entry in your program's task structure.

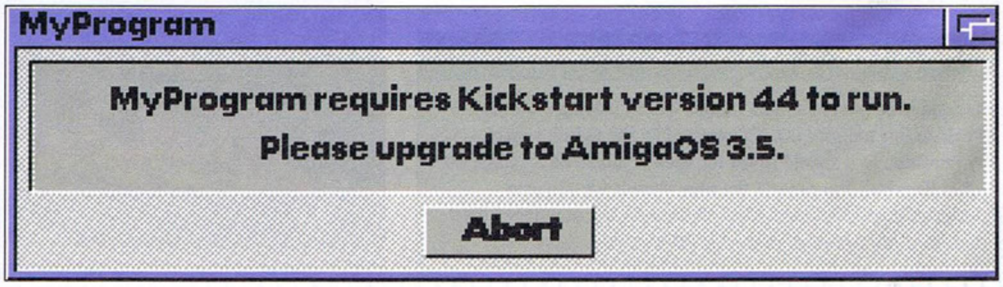
When it comes to reporting fatal errors, care must be taken as to what services you are using to report those errors. Trying to call one of Intuition's `EasyRequest()` function with the no intuition.library or the wrong version open will inevitably lead to a software failure. Similarly, printing to an error stream without an open dos.library will give similar results.

Low memory conditions are also a problem. A failed allocation of a small amount of memory will inevitably mean there is not enough memory left to open a requester. Perhaps a standard alert or even simply writing the error message into a window title might be a better idea?

A FINAL WORD

As you can probably see, safe-guarding your programs against errors is a difficult and time-consuming task. But it is usually worth it. Software which behaves in a uncivilized manner in the face of errors will only frustrate the user. That's enough for now. Example code is supplied on this month's CD, illustrating the issues and techniques discussed above. Next time we'll get down to writing some code for our AFMore project proper.

Error messages should be clear and offer a remedy if possible.



Synth Studies

You know your Amiga can talk, but it's pretty useless, right? Wrong! Tony Horgan reckons your Amiga's voicebox is a lot more versatile than you ever realised

AFCD45: -In_the_Mag-/Synth_Studies

ON THIS MONTH'S CD

Back in its glory days our beloved Amiga was a success for a reason. Unlike the cheaper 16-bit option at the time, the Atari ST, the Amiga came with a raft of innovative features: fancy graphics hardware, stereo sound, lots of custom chips, a clever operating system... and a speech synthesiser.

In a rather bizarre move, the speech synthesis features of Workbench were removed after version 2.0. Maybe it had become a bit of an embarrassment to Commodore, what with its monotone drone and all, but all it needed was a bit of development and it could have gone on to greater things. Fortunately it has received various updates from Amiga users since then, and with the right bits and pieces of software (primarily the say command, narrator.device and translator.library) we can all make use of it today.

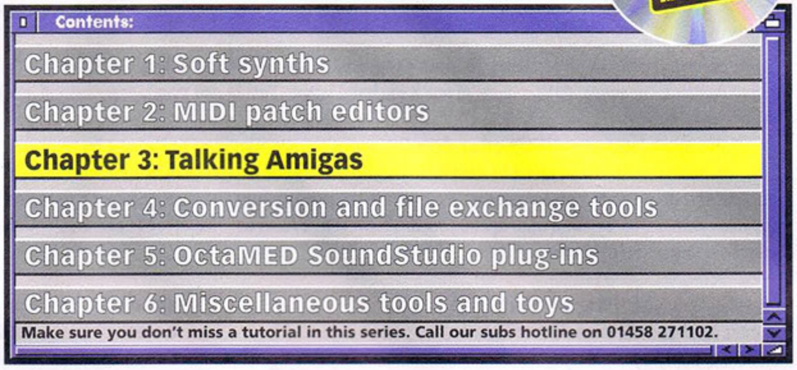
HOW IT WORKS

As far as we're concerned, it's very simple to use. The Say command can be used straight from a Shell window. Simply typing: "say these words here" would cause your Amiga to say "these words here". To get it to read out a text file, just type: "say -x textfile" where "textfile" is the name of the file you want to be read. For an easier life, just enter "say" on its own to launch the little speech program. Use the options displayed in the left hand window to change characteristics like speed, pitch and so on.

You'll notice that some words are spoken better than others. This is because the system is only so good at understanding the pronunciation of written words. It knows how to pronounce "sh" and can strip out a silent "k" when put in front of a letter "n". However, if you find it pronounces words wrong, try writing them phonetically, so instead of "river" (which would be pronounced "ryver") type "rivver". This is based on the standard American English accent setup. The latest version of the translator.library allows for different accents to be used for pronunciation. See the box for more details.

ON THE CD

You can hear what all of this sounds like by playing the audio track on this month's CD. It's narrated by the default speech synthesiser, so it should speak for itself (I should be on stage with jokes like this). You can use the alien sounds for you own purposes if you like them. Also, all the software mentioned here and more can be found on the CD-ROM section.



WHAT'S THE POINT?

There are quite a few reasons why you might want your Amiga to talk. One case would be if you were using the machine without being able to see the monitor or read text clearly. You'll find a tool called SpeakPatch on the CD which reads out alerts and requests as they happen, so you're asked to "Please insert volume InstallDisk3:" and that sort of thing. Similarly, if for any reason you are having trouble reading a text document, you can get your Amiga to read it out for you.

> **You might want your Amiga to talk if you were using the machine without being able to see the monitor or read text clearly**

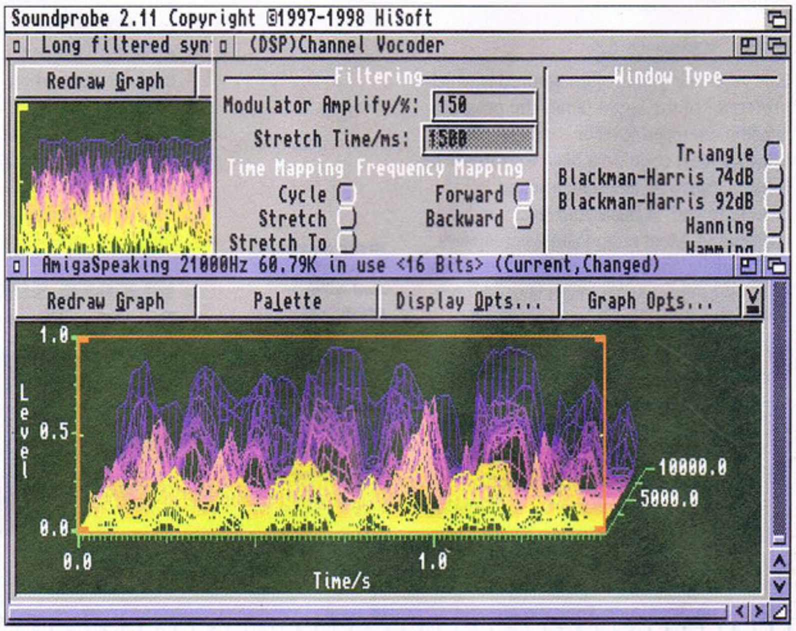
If there isn't a tool in existence to do what you need, the speech system is simple enough that a bit of basic programming knowledge should be sufficient for making your own custom speech utilities.

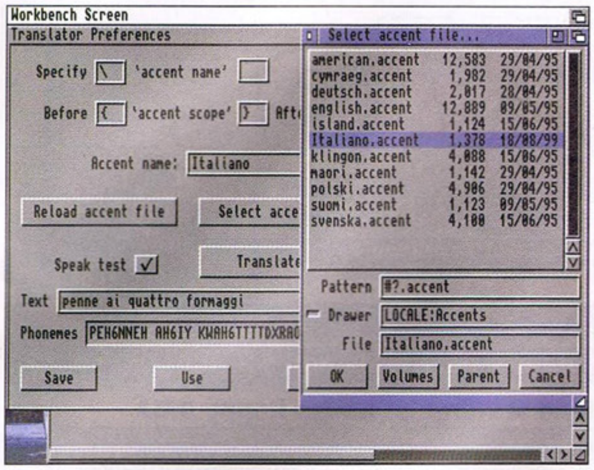
MUSICAL USES

If you want to use some speech in a musical project, the best thing to do is use a tool such as *Say2Raw* or *Speak2Sample*. They both direct the speech output to a sample file, which can then be loaded into your preferred software. *Speak2Sample* is the more developed of the two, offering control over various parameters with the option of output to an 8SVX IFF or 8-bit WAV file.

Once you've got the speech in the form of a sample, you can set about making it sound a bit better. It's unlikely that you'll be able to make it sound much more human, but you can do things like loop sections of

When combined with a vocoder process, a bland bit of synthesised Amiga speech can be transformed into something much groovier.





You can get the speech synthesiser to emulate different accents and interpret combinations of letters – handy for reading restaurant menus.

SPRECHEN ZIE ITALIANO AMIGO?

The default pronunciation of the speech synth is based on American English, but if you install version 42.4 of the translator.library, you can use the Translator program to specify alternative accents. The same piece of text will sound different depending on the accent that's specified. There's full documentation describing the process of defining a new accent, so if yours isn't there, you can make your own. You could teach your Amiga to speak Glaswegian, Scouse, Geordie, Brummie, Cockney, or even loike what they do in Baaaaath *(Oi! Git orf moy laand – Ed)*. Those on the CD include German, Polish, Italian, Welsh, Swedish, Maori, Klingon and a few others.

vowels, re-pitch certain parts, add echoes and reverb, or use it with a synth sound and a vocoder effect (with *SoundProbe* or *SoundFX*) to get that singing robot effect that's so popular at the moment.

Because you can specify the pitch of the speech, it's possible to make your Amiga sing. It sounds awful, but it's fun all the same. There's an example on the CD audio track, and you'll find the text file that was used to create it in the data section.

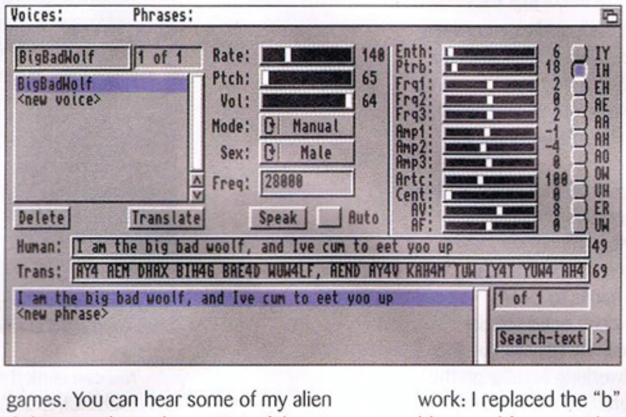
Changing the settings is a good way to create alien voices for use in games. You can hear some examples on the audio section of the CD

ALTERNATIVES

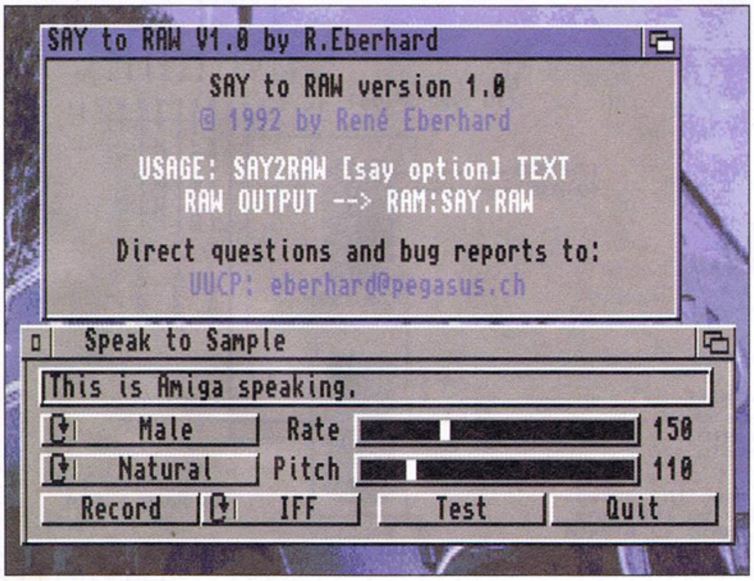
Some of the more advanced speech tools can be put to good use for more abstract results. Utilities such as *VoiceTest* and *SpeechToy2* give you control over about 20 parameters of the speech output. With these you can make the voice sound more "perturbed" or "enthusiastic", and change the emphasis of the formants (resonant sounds). Extreme changes in some settings lead to distortion, while others can make the speech completely unintelligible.

One use for this that springs to mind is the creation of alien voices for use in games. You can hear some of my alien dialects on the audio section of the CD. Most of them were made by increasing the speed of the speech to maximum, then typing in a load of gibberish with a few spaces here and there. Another trick is to type pseudo-gibberish rather than completely random letters, like "bliblibliblibftsftspopopoweeee". It kept me entertained anyway. I've given them a light dusting of reverb and delay to add a bit of atmosphere. These kind of sounds are also excellent for dropping into soundtrack music, or for freaking people out in the middle of chillout records.

If you don't like the standard voice, there's a tool called TalkReplacement which does the same kind of thing as the standard speech system, but uses a set of sound samples in place of the original phonemes. It's got a creepy kind of sound to it, but you can sample your own voice and use that instead. It works with Futuresound format samples, which seem to be virtually identical to the normal 8SXV format, but not quite, so unless you have Futuresound or you can figure out the file header, you'll need some kind of file conversion tool that can turn an IFF, WAV or RAW sample to the correct type. If you really want to, you can actually replace each by identifying the file header in a sample editor (it's the screechy bit at the start) and then replacing the following data with new sample data, then saving the resultant sample back as a raw file. It does work: I replaced the "b" sound with a little bleep and forgot to change it back, as you can hear on the CD audio track.



You'll find a number of tools on the CD that give you lots more control over speech than the basic say tool.



Speak2Sample is a compact and neat solution for turning speech into sound samples, which can then be imported into various applications.

Q+A

Q Would it be possible to set up two Amigas so that they talked to each other?

A Yes, in theory. Both machines would need some voice recognition software, and some kind of artificial intelligence conversation software. You'd probably need to give them a kickstart with some topics of conversation, but after that, there's no reason why they shouldn't be able to go happily chatting away for hours. Let me know how you get on.

Q I've heard the song on the CD and I'd like to have a go at making my own. I want my computer to sing Happy Birthday to me when the day arrives.

A Oh dear, that's a bit sad. Never mind, it's easily done. The quickest way is probably through altering the "daisy.say" file on the CD-ROM section, using trial and error to alter the timing and pitch of each word. I'll refer you to Nick's ARexx series for the matter of getting it to sing on your birthday automatically.

Q It doesn't work. My Amiga won't talk.

A You've probably not got all the bits in all the right places. That is, your Amiga probably hasn't. Make sure you've got the say command in the sys:c/ drawer, the narrator.device in the sys:devs/ drawer and the translator.library in sys:libs/

Banging the Metal

Simon Goodwin explains all the itty-bitty details of floppy disk formats

AFCD45:-In_the_Mag-/Banging_The_Metal



Contents:

If you've missed any tutorials in this series, call our back issue hotline on 01458 271102.

This column explains disk formats below the level of individual data bits, down to the individual clicks recorded on the floppy surface. This reveals how the Amiga can get more on a disk than any rival, and access more formats, including old FM and GCR data which is unfathomable to other computers.

The Amiga floppy interface is so flexible it's also been used for networking and MPEG audio streaming. This makes sense because transfers to and from the disk port need no CPU time, thanks to DMA hardware. Disk data does need special formatting, but this can be handled by the blitter. Disk-port networking code is on the *AFCD*, along with about 50 disk interface hacks: PC and Mac floppy adaptors, eccentric formatters, disk monitors and trackdisk tweaks galore.

The Amiga floppy interface is so flexible that it has been used for networking and MPEG audio streaming

FLOPPY HARDWARE

The disk drive hardware is controlled by two chips. Paula streams data to and from the drives, while data port B of the 8520 CIAB controls slower lines selecting a particular track, side and drive. Distinct lines select drives 0 to 3, so you can write to any combination of up to four at once.

Consequently each drive must latch the motor signal when it is selected. PC drives simplify things by using four wires to control one of two drives, and need not report disk changes, so you need a couple of extra chips – or Kylwalda – to connect them to an Amiga. Old 800K Mac drives change speed as the heads move, to get more on the longer outside tracks, and another couple of chips sorts that out.

CIAB PORT B CONTROL BITS AT $BFD100

BIT	FUNCTION
7	Motor control
6	Select drive 3
5	Select drive 2
4	Select drive 1
3	Select drive 0
2	Head/Side select
1	Step direction (0 in)
0	Step pulse, >3mS

You can blink the floppy drive lights with POKE CIAB 256 128, which blips the 'motor' bit but should expect confusion if you do this while the system is reading or writing floppies. A 0 starts and 1 stops previously selected drives.

The data on a floppy is written in concentric tracks. Most Amiga drives have two heads, selected with bit 2 of port B, capable of accessing a nominal 80 tracks each side, although most can squeeze a few more at the inner limits. Short pulses step the heads in or out.

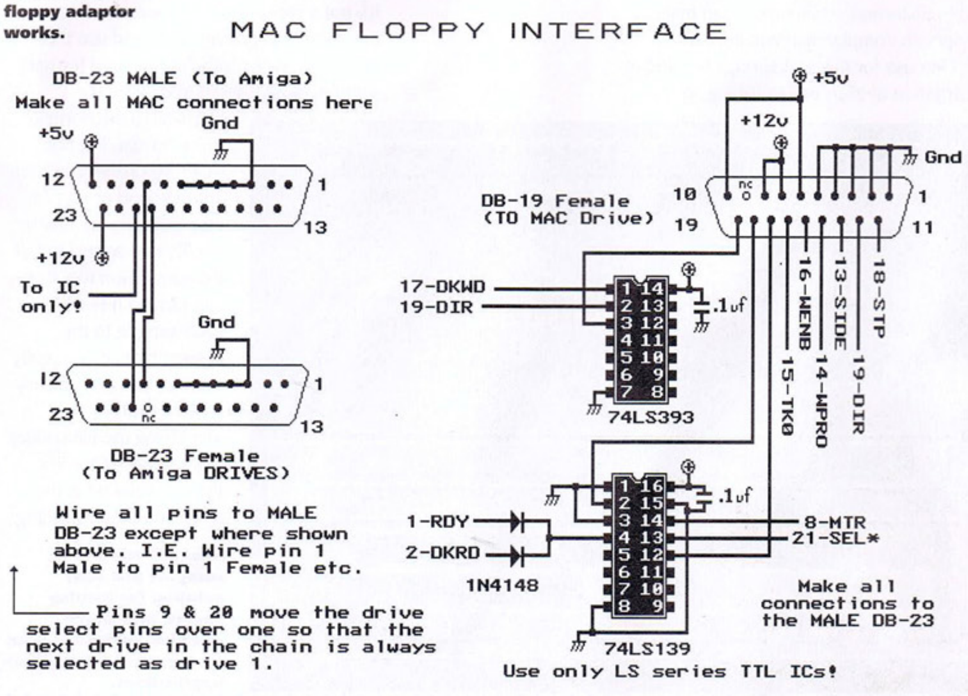
The infamous Amiga disk click occurs because some drives only detect disk changes when the head moves. Patches abound to suppress the annoying noise, on Aminet and *AFCD45*. MultiCX and TDprefs can fine-tune the stepping rate and time allowed for drives to start and settle down.

FORMATS

The double-density disk specification allows a megabyte of raw data on a double-sided 80 track disk, but some of this is inevitably used, like lines on a page, to divide the data for easy access. PCs wind up with 4.5K per track side, totalling 720K, old Macs and Beebs manage 800K, but Amigas fit 880K on a disk by default, and 984K at DiskSpare's limit, squeezing 6K onto each side of 82 tracks.

The extra comes because conventional disk controllers divide the track into sectors, with substantial gaps to allow for synchronisation and speed variation during updates, soaking up a quarter of the space on each PC-format track. Most disk controllers only supply the computer with the data from within the sectors, not the bits in-between.

AFCD45 explains how this Mac floppy adaptor works.



Amigas read and write whole tracks at a time. These may be divided into 11 or more logical sectors, but this is a book-keeping convenience; all the sectors are read and written back-to-back. The blitter quickly sifts sectors out of the bits from the track.

HIGH DENSITY

Paula disk transfers works at a fixed rate, optimised for DD floppies. It can't readily cope with PC and Mac HD formats, which pack bits twice as densely. Commodore got around this by supplying customised Chinon drives in some A3000 and A4000 systems. These halve speed to 150 RPM for high density floppies, so Paula gets the data it expects but HD access is no faster than DD. Power Computing HD drives spin the disk at the usual 300 RPM, but feed data to Paula at half-speed via a buffer. Only Catweasel can cope with raw bits at the high density rate.

FM, MFM and GCR Encoding patterns

"AF" is the ANSI characters $41 $46 in hex or %01000001 %01000110 expressed in binary.

In FM single-density this would be encoded:

1000 1010 1000 1000 1000 1000 1000 1010
1000 1010 1000 1000 1000 1010 1010 1000

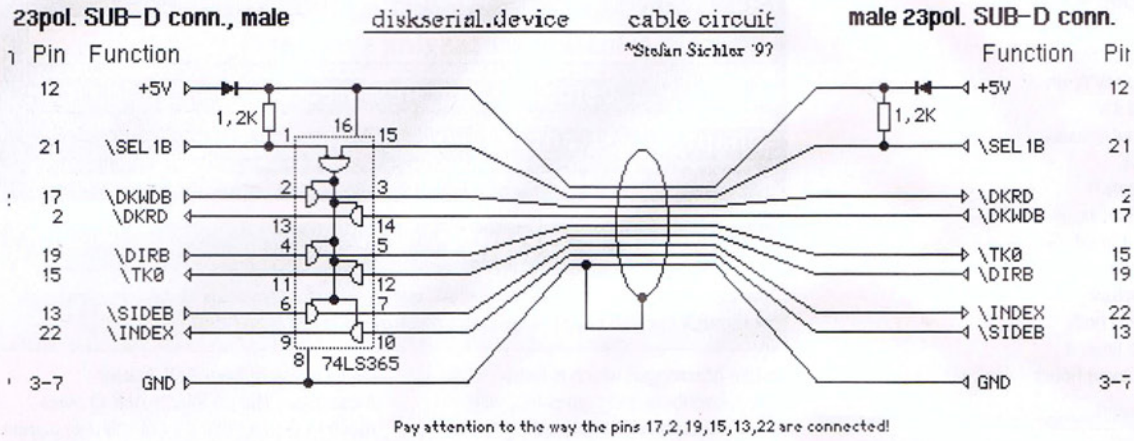
In MFM double-density (after an even byte) it is:

10 01 00 10 10 10 10 01 00 01 00 10 10 01 01 00

In a four-bit GCR with run length limited to five, it is:

10100010 10000010 10100010 10101000

This case uses an arbitrary 16-pattern GCR table.



One chip and a couple of resistors implement a floppy port network

SINGLE DENSITY

If our coverdisks are 'double-density', what was 'single-density'? Amigas can read this old, simple format, although it's little-used by the operating system and most useful for emulator enthusiasts with 5.25" floppy drives.

Paula reads a stream of raw clicks from a disk surface, at an even lower level than the data bits, a domain unknown to PC or Mac programmers. Single density disks use simple timing to distinguish recorded ones and zeros. Raw binary cannot be written because many values would defeat synchronisation.

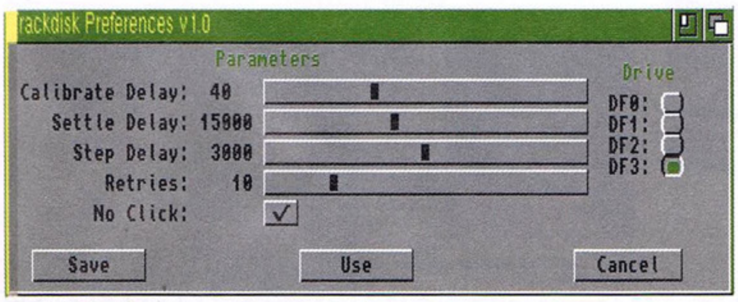
A set-bit is written as two pulses, and an unset-bit as one synchronising pulse, then a gap where a pulse might otherwise appear. This "FM" scheme uses four time-slots per bit, so the recorded binary pattern is 1010 for a set bit, and 1000 for unset, where 1 marks a pulse and 0 is a gap.

At least one pulse is guaranteed to appear every four time slots, so synchronisation is assured; a much longer run of gaps between pulses might be miscounted. Immediately adjacent pulses are not allowed, as they would be too hard to count.

MFM

Double-density 'MFM' eliminates regular 'clock' pulses, packing twice as much data into the same space. This magic is achieved by encoding a set bit with the pattern 01, and writing an unset bit as a 00 pattern if it appears after a set bit, or 10 if it follows another unset bit. Either way MFM keeps the same maximum gap-length of three.

In fact there are some extra patterns that can be safely encoded. The magic pattern 0100 0100 1000 1001 cannot occur in real MFM data, because the MFM rule says the penultimate pair of zeros should be 01 for a set bit, or 10 for unset. This corresponds to the data value %10100X01, where X is neither set nor unset!



Trackdisk preferences can be customised.

PATTERNS

The Amiga uses a 'sync pattern' like this to find the start of a track, before it sifts out the individual bytes and sectors with the blitter. Thus it can start reading a track at any point in the disk revolution, wrapping the data round as soon as it has read the whole track, while other computers have to wait for an index mark and the required sector header. Other 'illegal' patterns allow error detection and data reconstruction on dodgy disks. Amiga low-level disk access is complicated, but uniquely powerful.

GCR encoding is another variant, used on some Apple and Commodore drives. This uses a table of patterns to relate data values to pulses on disk. GCR can use longer gaps, but these are harder to decode accurately, making it less reliable. Some Amiga Technology drives support an extreme GCR format giving 1520K on a disk (HF0: with gcrdisk.device) but standard Commodore ones can't cope.

It's useful to understand the way Amigas handle floppies if you need to read an alien format, adapt a drive or reuse the hardware for some other purpose, like DiskSerial or Jen's Schöenfeld's Atlantis MPEG player. However it's rarely a good idea to program the disk hardware directly for file storage and retrieval – you just tie the user of your software to a particular protocol, preventing network, RAM or hard disk redirection later. It's easier, and more flexible, to use the READ and WRITE calls in dos.library, with an appropriate handler.

NEXT ISSUE

The Amiga copes well with low-level access to disk data, because it's got very powerful hardware to search and sift bit patterns in memory. The Blitter can do much more than copy bits around – it can also compare and extract patterns, pack or unpack any sort of data, as we shall discover next issue.

Amiga.net

Dave Cusick looks at the popular instant messaging system ICQ

Contents:

If you've missed any tutorials in this series, call our back issue hotline on 01458 271102.

Electronic mail is a fabulous means of keeping touch with your friends and acquaintances, and there is little doubt that for those of us who have been using email for a number of years, it's hard to imagine being without it again. Email is such a convenient means of communicating; it's faster than "snail-mail", it's cheaper than ringing somebody (especially if they're on the other side of the world), and it's spontaneous and informal without actually requiring an immediate response.

However, one of email's greatest strengths is also its greatest weakness. The non-immediacy of email makes it great for communicating with someone when either you or the other person is not actually online at that instant, but if you do both happen to be online at the same time, it could still be several minutes or even hours between a message being sent at one end and being received at the other. If you really want to chat to online acquaintances in something approaching real-time, you need an instant messaging program. In the wide world of computing there are a number of competing instant messaging systems – and in true emerging-technology fashion, they're all totally incompatible with one another. The most popular instant messaging system, if you discount *AOL Instant Messenger*, which is issued to all AOL subscribers and comes free with *Netscape Communicator* on the PC and Mac, is ICQ ("I Seek You").

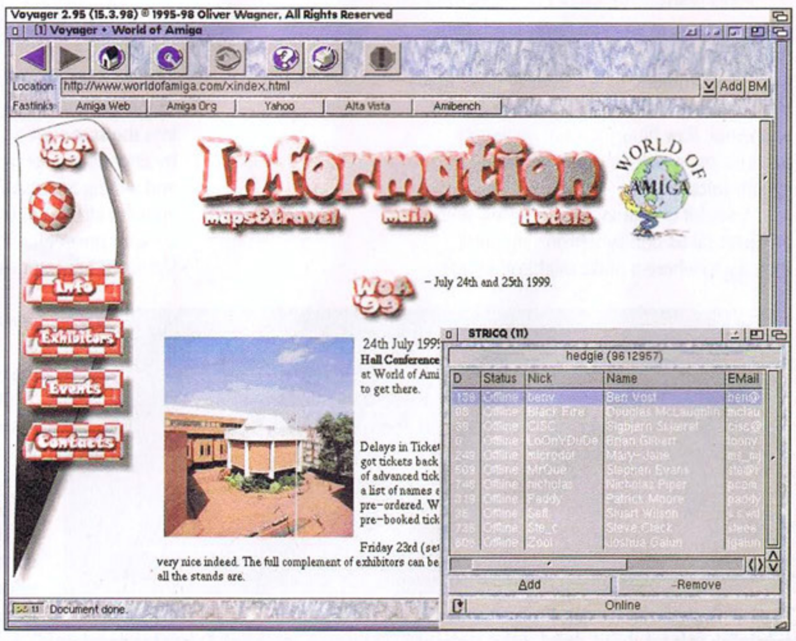
If you really want to chat to online acquaintances in something approaching real-time, you need an instant messaging program

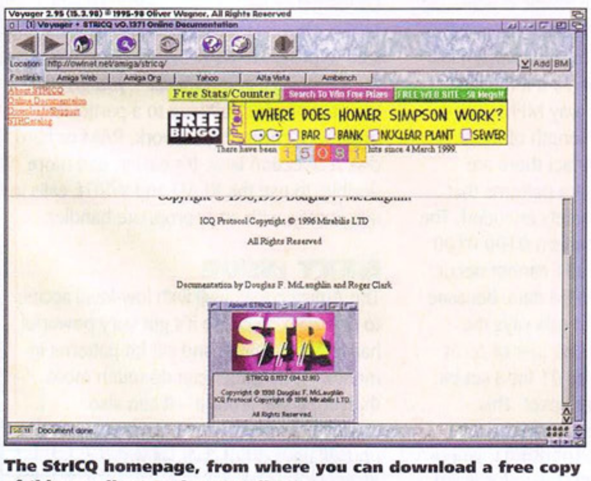
CONTACT POINT

You can contact me with your comments, questions and suggestions at dave@cusick.co.uk or through my Web site at www.cusick.co.uk. My ICQ UIN is 9612957

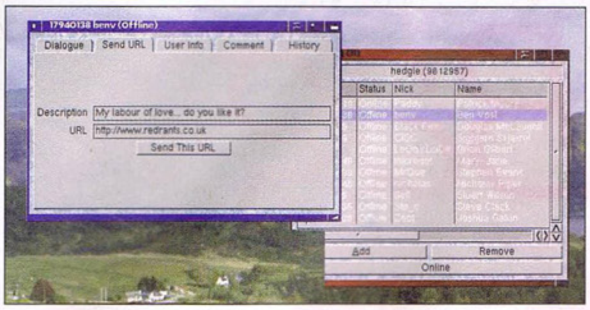
ICQ was created by an Israeli company called Mirabilis, and since its initial release during 1996, it has consistently been amongst the most popular downloads on all of the major PC and Macintosh software archives. It's been through several major releases (although the latest one is curiously still only called 0.99beta!) and it's won over millions of net users. It's even won over AOL, who bought Mirabilis in mid-1998, although so far they've kept ICQ as a distinct system from *AOL Instant Messenger*. The popularity of ICQ owes much to the fact that it's quite simply a great way of keeping in touch with people over the Internet. Indeed, the PC program itself is far from perfect, with some irritating quirks, and the ICQ protocol has been found to contain some slightly concerning security holes, though some of these have been addressed by Mirabilis. The bottom line though is that to most people, the benefits of having an instant messaging program such as ICQ far outweigh the shortcomings in the implementation of the concept. It's also true that part of the value of ICQ comes

To get the most out of ICQ, it's a good idea to have your client running whenever you're online.

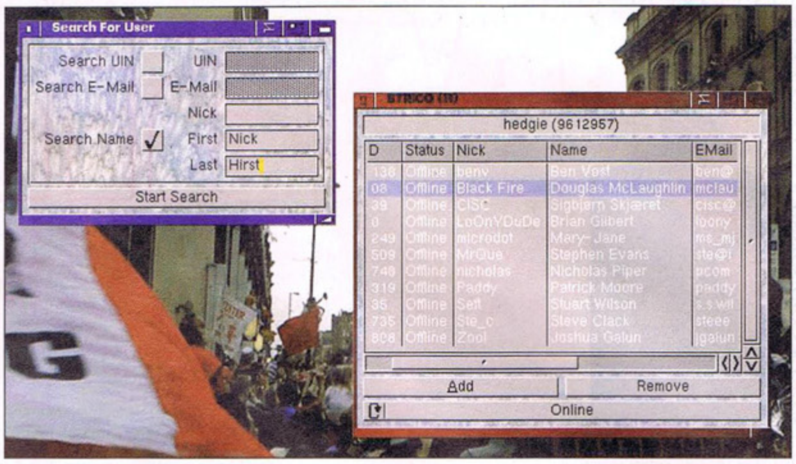




The StrICQ homepage, from where you can download a free copy of this excellent Amiga ICQ client.



You can use ICQ to send interesting URLs to your friends.



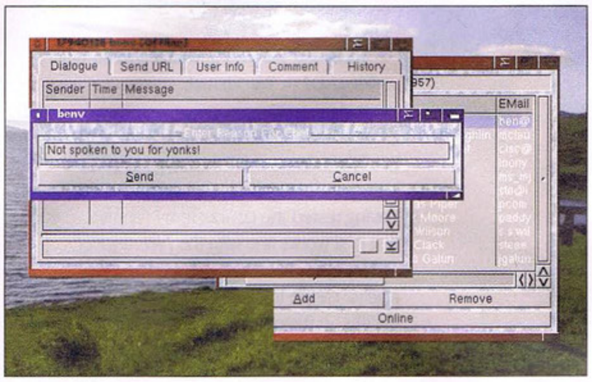
It's easy to add ICQ-using friends to your buddy list, whether or not you know their UIN.

from the fact that so many people already use it. In the PC world, it's arguable that *MSN Messenger* offers more power and *AOL Instant Messenger* is easier to use – but so many people use ICQ that it's the instant messenger of choice, because people want to be using the same system as their friends so that they can communicate with them. Similarly in the Amiga world there have been various attempts at creating instant messaging systems over the years – some of them pre-dating ICQ – but none of them have caught on because not enough people adopted them.

NEW CONSTRUCTION

A year or two back, attempts were made to try to persuade Mirabilis to port ICQ to the Amiga. They weren't interested, but then details of the ICQ communication protocol were posted to a newsgroup, and enterprising Amiga programmers managed to use this to construct their own Amiga ICQ clients. Since then there have been several clients in development, but the best of the bunch is undoubtedly *StrICQ* by Douglas McLaughlin.

StrICQ can perform virtually all of the same party tricks as the latest PC version of ICQ. In fact, it does a few things better than the original. The first thing you have to do when you've downloaded and installed the latest version is to register yourself with the ICQ server, if you haven't already done so. To do this, go online and run *StrICQ*, choose 'prefs' from the settings drop-down menu, and fill in at least some of the information on the basic info and extended info pages. Then choose the 'Register UIN' option from the file menu. When you register, Mirabilis issues you with a unique UIN (Universal Internet Number), which is used to identify you to the Mirabilis servers when you go online – the idea being that every time you go online, you have an ICQ client running. If you give your UIN to your ICQ-using friends, they'll be able to tell when you're online, and you can



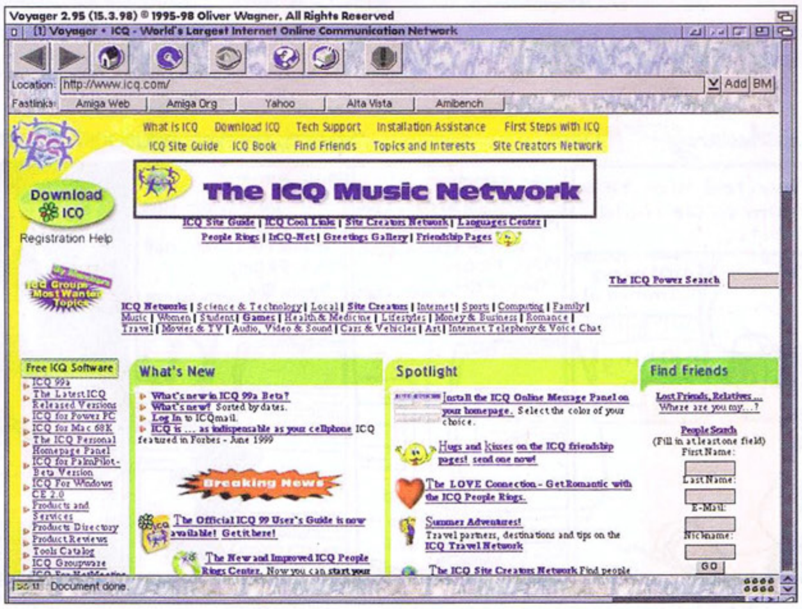
You can initiate a one-on-one real-time chat by selecting the appropriate option from the message window's pop-up menu.

communicate through the ICQ system. When you enter the UIN of a friend, their name will be added to a "buddy list" which appears on your desktop, and you'll be able to see when that individual is online. You can send them a message by double-clicking on their name. They'll receive the message within a matter of seconds. If they're offline, they'll receive it when they next come online. When you double-click on a name, the window which pops up not only enables you to send a message, but also a URL accompanied by a brief comment. There's also a tab which lets you view various personal details that the user has entered into the ICQ database. On the PC version of ICQ, when you send or receive a message it appears in its own little window, which you then have to close when you've finished composing or reading the message. This means that if someone's bombarding you with a stream of short messages you have to keep opening and closing windows. By contrast, *StrICQ* groups messages sent to, and received from, individual users within a single window, making it much easier to keep track of conversations.

IN HIDING

If you don't want any old person monitoring your online/offline status, you can set ICQ so that your authorisation is required before someone else can add your name to their buddy list. To do this, tick the 'require auth' box on the basic info page of the preferences screen. If you're waiting for a friend to come online but don't want to be engaged in conversation by anybody else, click on the status indicator at the bottom of the buddy list and change it from 'online' to ' invisible'. You can keep tabs on your contacts but they'll only know that you are online if you send them a message or URL.

ICQ also features a chat mode in which you can converse in real time so messages appear on the screen for all participants as they are typed. *StrICQ* now features this chat mode, although dragging users from your buddy list into the active chat window, does not invite them to join in. To enter the chat mode, double-click on a user's name, and in the bottom right corner of the window which opens you will see an arrow icon. Click on this and choose 'chat' from the menu, *StrICQ* will send a Chat request to your contact. If they accept it, the mode will automatically be launched.



The official ICQ homepage totally overwhelms you with links to ICQ-related features and sites.

WEB SITES OF INTEREST

StrICQ - http://owlnet.net/amiga/stricq/
ICQ - www.icq.com





MailBag

Send your letters to: Letters To The Editor • Amiga Format • 30 Monmouth Street • Bath • Somerset • BA1 2BW or email: amformat@futurenet.co.uk – putting 'Mailbag' in the subject line.

SPARE US

- Long, looong letters with numerous points. Keep it concise!
- Letters addressed to Mailbag that ought to really go elsewhere.
- Questions asking why Amiga aren't advertising on ITV yet
- Technical questions which should be addressed to Workbench

SEND US

- More designs for a new Amiga
- What you thought of WoA this year
- Lookielikies for Amiga people
- Comments on the new tutorial format
- Things Amiga need to get right
- General questions you want answered (not technical ones – that's what Workbench is for!)

FREE INTERNET?

First, thanks for a great mag – the pictures of the new Amiga in the last issue (*AF126*) really got my family chatting as to which was the best. Anyway onto the real subject of this mail. In your mag you have covered free ISP's and I'm here to tell you about another called Screaming.net (http://www.screaming.net). Not only are they a free ISP but if you switch your BT line over to a phone company called Localtel (as I am doing) you get free connection to the ISP off-peak (after 6pm till 7am weekdays and all weekend). The sign up for Localtel and screaming.net is done online using *Internet Explorer* (I've tried with *Netscape Communicator* and had some friends check with Amiga browsers) which is a pain but one I'm sure people will overcome to sign up. Once you have completed the sign up it should only take seven days for BT to do the switch (so far I have been waiting three weeks, but this is down to BT messing me around and losing my information plus a massive backlog). Having tested the connection I can assure you that it all works fine with the *Netconnect* software so I assume it will work with all TCP stacks. I hope this info is useful to anyone else getting on the net (It really helps with parents!).

Steven Harker
via email

Well, I'm not sure that the length of time taken over the conversion is entirely BT's fault, since Screaming.net are a fairly new company, but having the prospect of a completely free connection to the net is enough to get anyone salivating…

MORE ISP, AND MORE BOING

Much has been said about the merits or otherwise of free ISPs and unmetered phone calls to them. Whatever the eventual outcome I feel that Internet access in the UK will evolve into a two-tier system. A first-rate system, where those who can afford the expense pay for ISP services and phone charges and a second-rate system which is free to the user apart from phone line rental, for those on limited means. Sounds familiar!

A letter from Calum in the August issue of AF suggested an animated boing/tick logo. A nice idea and an improvement on my static suggestion. Pity that you didn't print Calum's email address as I'd like to discuss this further with him. Maybe you'd feel disposed to print my email address so that he can get in touch with me if he feels so inclined. Many thanks.

Jim Buckley jimbuck@jambutty.u-net.com

Jim, I'm positive that the telecommunications standards are likely to change in this country over the next year or so, and while I think you're right about the two tiers of service, I think that that's only fair. I wouldn't expect the same of a National Health Service, for instance, but then that's a vital component of life – well, more so than a net connection.

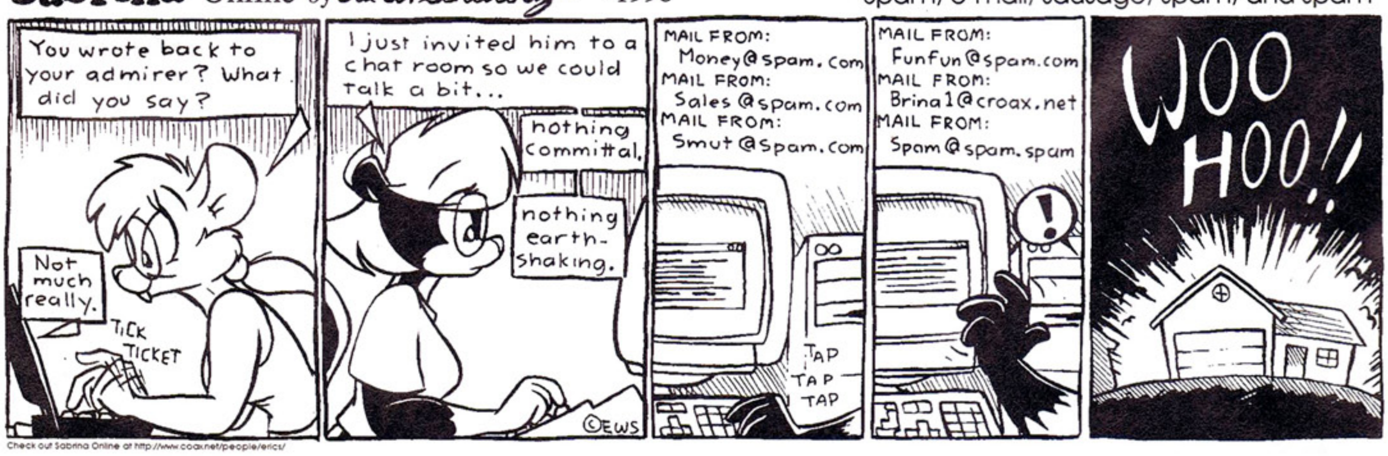
IN THE CHARTS

In the Head-2-Head of web browsers, there is a bar-chart of speed comparisons. One of the figures in the bar chart shows 31.4s, and another shows 7.2s, but the 31.4s bar is only twice the size of the 7.2, and nowhere near the other two in the 40s and 50s. What software do you use to create these bar charts, and is there a bug in it?

Victor Bell

Colin has told me that it's, as we call it in publishing's very technical language, a "cock up". Now, I'm not sure what that means, but the upshot is that the 31.4s box got resized accidentally – all the rest should be fine and perfectly scaled.

Sabrina Online by Eric W. Schwartz ©1998 "Spam, e-mail, sausage, spam, and spam"



Check out Sabrina Online at http://www.coax.net/people/erics/

THIS ONE'LL RUN ON AND ON...

Having just seen the Linux announcement on Amiga's web page, I have to say that I am very disappointed. Not only would QNX have offered what the Amiga needs to succeed as a 'MultiMedia Convergence' device (real-time capabilities, reliability, efficiency, in fact, everything that Amiga had in 1985), it seems that Amiga are just jumping on a bandwagon, thinking that, as 'everyone' is praising Linux and touting it as the OS of the future, they might as well hop on and see how it goes. You may well say that, as it's just the Linux kernel that is to be used, it won't actually be Linux. In that case, the only reason for using it in the first place, compatibility, goes out the window. Linux, as we have been told, is a monolithic kernel. The AmigaSoft (hnnngh) kernel must be real-time, to handle multimedia applications, streaming, etc. Ever seen how bad RealVideo is on Windows, another monolithic OS? QNX, like Linux, is POSIX compliant, so porting applications is not difficult. Hell, there's even a QNX port of Doom on ID's website. If it was easier to port Doom to QNX than to Amiga OS, how hard could it be? QNX has had shared libraries since its inception and Neutrino is very similar to exec in the way it handles multitasking and message passing. In fact, I seem to remember that QSSL borrowed ideas from exec to use in Neutrino. I see no reason to undo months of hard work on the part of QSSL by simply leaping onto the bandwagon of an OS which is even more patchy, hacked and thrown together than most people's WB. In my opinion, the Linux decision is the worst Amiga have made and has made me reconsider buying an NG Amiga. If Amiga is to reconquer the world, then it must offer something so revolutionary that no other platform can come near it. "But you'll be able to run Linux applications," say Amiga. This is a joke. Linux is great for serving etc., but as a home OS? Let's have some sense. Amiga have made a mistake on a par with Hitler's invasion of Russia, but if they retrace their steps and apologise to the right people, they may just be able to recover their lost ground. Please, *AF*, don't join Amiga on the bandwagon, but strike a blow for freedom, democracy and real-time kernels by condemning this decision in your hallowed pages. It seems that, just as everything was going perfectly and everyone was happy, Amiga had to start a row that could precipitate a split in the community. This is the last thing we need. I beseech you, Amiga, select QNX/Neutrino and you won't be disappointed. Compatibility isn't an issue, because of the Class One/Two compatibility thing you explained. I'm off now, to ingest massive amounts of caffeine in preparation for the long wait...

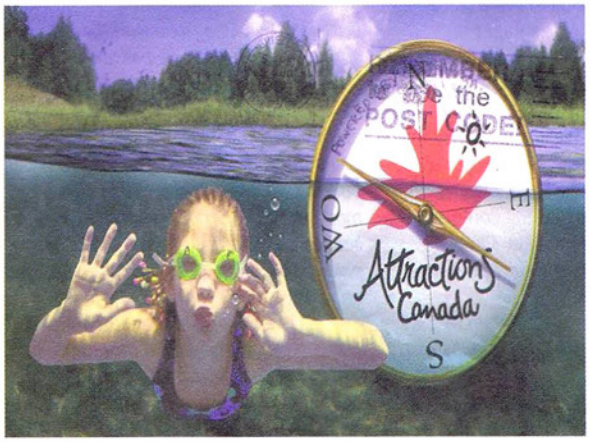
Finn Lawler
Republic of Ireland

The decision seems odd to me too, especially the way it was implemented, but Amiga have repeatedly told me that they had checked into the situation over a period of months, and that they wouldn't lose anything by going the Linux route. There are also the internal political decisions that may well have taken place. QSSL may well have asked for high licence fees for their part of the OS, and they may also have only given it to Amiga on a non-exclusive basis. The fact that every hardware and software company that Amiga have talked to only had interest in producing their software for one other platform, that being Linux, must have had an effect on the decision as well. Obviously, we're in a position, familiar to all Amiga owners, of waiting and seeing once again.

Continued overleaf ➡



"Mmmmmm, fish," thought Tux as arguments raged around him.



Thanks for the postcard Michael. Keep sending us your mail, money, gifts...

AMTECH AND WEBSITES

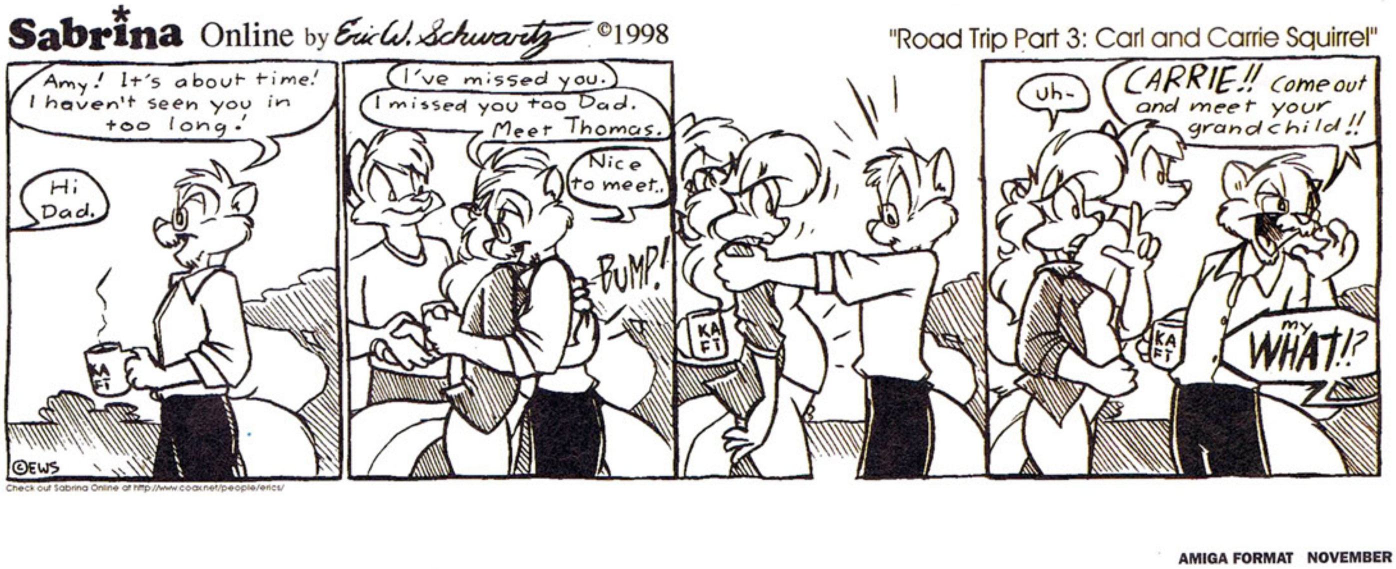
Today (Saturday, July 17), I saw a PC advert in the *Daily Mail* for "amtech" PCs. To me this sounds very much like "Amiga Technologies", just a short-hand version of the name. Even the amtech logo resembles the Amiga one, with a diamond shape hovering above the "i". Stranger still, this PC had some brushed aluminium like that on the AmigaNG concept drawings. Is there any link between amtech and Amiga or Gateway? I tried the web but failed to find anything, except the amtech site in German.

NetConnect is an excellent package, which I strongly recommend to anyone thinking of getting on the net. A number of people I know (PC users included) have been very impressed by NetConnect and particularly its professional look, Dockbar and ease-of-use. I've got the hang of email, browsing, and I'm getting quite heavily into FTP, but I have no idea how I can access my web space or how to produce a site. What about doing an easy-going tutorial on building and maintaining web sites, as I'm sure I'm not the only Amiga user who would like to take this up, but hasn't got a clue where to start.

Keep up the good work with the magazine, and all the best for the future.

Daniel Hutchinson
via email

As far as Amiga are concerned, this amtech company are nothing to do with them. As for doing a tutorial on building a website, it's hard to be able to give advice to users of every single ISP, since the way they work their websites is different, but reading Neil Bothwick's excellent HTML tutorial will give you a good grounding in writing HTML.



Check out Sabrina Online at http://www.coax.net/people/erics/

AMIGA'S SHAPE SUSPECT?



It's no longer hip to be square with the curvy MCC.

Looking at the design's of the new Amiga, I noticed one thing – these Amiga's look more like modern art than a practical computer. It is well known that computer chips and components are square – and should logically be put in a square box. These new aerodynamically-shaped Amiga's are a designers dream, not a sensible solution. What is the target market of the Amiga, anyway? What are it's unique selling points? Obviously if they want to sell the new Amigas, they will fail if they go after the entire computer market.

I have always seen the Amiga as a flexible, easy-to-use computer, good for personal home use. What do Amiga see the Amiga as?

Phil Thomsen

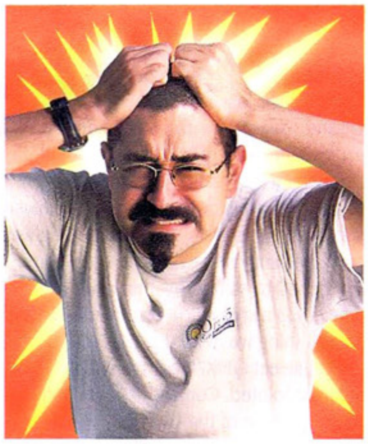
Whether chips are square or not shouldn't dictate the external shape of a computer's case. Modern motherboards don't take up the kind of room that the Amiga 2000's once did, so designers can be freer with their imagination than they have been. The target market for the MCC is likely to be the kind of person that's already fed up with the square box he has for a video recorder, a TV, and a hi-fi, and certainly won't want another.

CD PROBLEMS?

Hi *AF*. Not one to complain, I have found myself with an exception. It is your website which is on the CD every month. Not so long ago I sent an email to Workbench asking why my system crashes unexpectedly, I said it happens when web browsing. The image on the site which says "Ben Speaks" does not load on my machine, instead it crashes it. Please do something about this, for instance, make the image smaller.

Craig Sears
via email

Just the one image? Is it possible that you are running out of chip RAM and that's causing the crash? Send me a private email so that I can find out exactly what the problem is.



After ripping all his hair out, Ben starts on his scalp.

TWO CLASSES INTO THE SHOWER?

I read how Amiga were planning to offer two classes of Amiga compatibility, in effect making Amiga clones possible. This is not the way to go about making the Amiga more popular. We all know what happened in the PC market with IBM clones. Although Amiga is attempting to gain control over the situation by saying that only true Amigas will be able to run all the software, there are likely to be more people owning Amiga clones than actual Amigas, so both PD programmers and large companies will start programming for the clones. This may result in there being no advantages to owning a true Amiga. After people stop buying true Amigas, Amiga have no way to make sure people use their operating system, thus losing control on the market. On a lighter note, what is the difference between Amiga Inc. and Amiga Int.?

Stephen Morley
via email

Your last point first. There is no Amiga Inc, or Amiga International, as has been said in the mag on several occasions. There is only one company – Amiga. Your other point now. I can see where you are going, but it isn't the hardware that'll be cloned, merely a version of the Amiga's OE which will run on top of other peoples' software. I don't know about you, but I'd much rather have my blazingly fast Amiga than a shabby old PC running the Amiga Operating Environment really slowly at twice the cost.

AMIGA LIVES

Here's something I think all people who have been writing in, complaining about Gateway not doing anything in 2 years should hear: Gateway do not care about the Amiga.

Sorry, but before they bought our dream they were a PC company, and still are 95 per cent of the time. I thought they looked promising when they held on to the Amiga technologies for more than two months; more than Escom and Viscorp managed, but after seeing Gateway doing TV adverts for the PC and realising they were breaking promise after promise at the WoA show, I was led to believe that they only really care about the Pile of Crap (My joke, shamelessly stolen by *AF*.) This was all eventually confirmed when the CEO himself said "It's definitely not a computing business" (I don't actually know what that means, but it sounds bad).

The only ones who care about the Amiga are all us surviving Amigans, especially the User Groups and AmigaSOC, all you geniuses at *AF*, Amiga International, and particularly Amiga. This brings me to my more positive point. It actually looks like the promise will be kept this year, with the designs for the NG Amiga. Due to the fact that these things always arrive late, (BoXeR?) the machine won't arrive at Christmas this year, but in fact early next year – the new millennium! Some people might think I'm mad to say this, but it looks like the Millennium Bug could actually help us! Oh, yes! While a large portion of Microsoft disciples suffer similar effects to an electro-magnetic pulse, we'll pass through unaffected and take over! Well, that is if the Mac doesn't…

Stu MacDonald
via email

Gateway have little to do with the Amiga, and what Ted Waitt says has absolutely nothing to do with plans that Amiga may have. In fact, their view of Amiga is probably correct from their perspective, if you think about it. They probably won't be building MCC machines, or the ATX motherboard alternative, unless they licence them from Amiga. Yes, Gateway paid the cash out, but Amiga is a separate company – don't look at any ads for Gateway and assume them to be anything at all to do with Amiga, or their plans. Oh yes, and by the way, there is no Amiga International.



Entertain all your friends with the amazing 'Cow-in-a-box'.

WORLDLY WISE

While trying to get satisfactory images with VistaPro, I suddenly remembered a program called *World Construction Set* (WCS), previewed in *AF* way back in issue 82 (with a great animation on the very first *AFCD* with issue 85). I don't recall ever seeing a proper review, and assumed it had vanished to other platforms because of the state of Amiga development.

So I was surprised when I visited http://www.questarproductions.com, the home of *WCS*. It mentions some upgrades

THE NAME'S FORMAT… AMIGA FORMAT

Oh damn those copyrights, I just have to respond after reading your review of, *You Only Live Twice*, I absolutely can't wait to get hold of the game, and am willing to pay for it, it just makes me really sad that the game can't be enjoyed by other people due to the copyright samples, argggghhhh! I just want to say, "Hey, Andrew Crowe, put your game onto the net, or change it around, but hurry, cause I wanna play that game!". Oh, yeah, nice mag by the way, I have been reading it since the early nineties, I was an *Amiga World*, and currently *Amazing Computing* subscriber, as I came over from the States in the early ninties, ahhh, the good old days. Keep up the great work, and hopefully the Amiga will go somewhere, if not we will hang in there till the bitter end…

Timo Paul



Hopefully you enjoyed the somewhat more copyright-friendly version we had on our last cover CD then.

Watch those cuff-links James they are loaded with, argggghhhhhh!



for current owners of the Amiga version and that development for the latest version is in progress. They're not currently taking orders for Amiga versions, but the company is mentioned on http://www.amiga.com in the licensees list.

Is this news still current? I've tried to find out as much as I can about an Amiga version, but I wondered if you, with all your contacts, might have more information on what looks like a very impressive product.

Dan Bigmore

Visit the world without a passport using WCS.

We did review the first version of WCS, before I started at AF, but we've never really covered WCS2 since I've been waiting for three years to receive anything other than promises from Questar.

OS3.5 WISHLIST

Hello *AF*. Here are some things I would love to see in the new OS 3.5:

1 Status for Copy/Delete via WB . When dropping an icon into a drawer/disk or Deleting an icon I would like to see a status requester appear showing "n% bytes transferred", "info" and "stop/pause" buttons . So when I next pick up an icon by accident and drop it into an open drawer or start to delete the wrong drawer (Shift'n'Selecting) I can abort the procedure (if not in the OS then somebody please make a patch!)

2 HDToolBox upgrade. I used RDPrep to set up my HD for a while as I could make my partitions be fastmem only (for maximum chipmem). The whole configuration could be saved as a standard Mountlist and I could then mount non-automounted drives with the mount command. HDToolBox should be able to do this, I found it very useful. Unfortunately I have upgraded to a 3.2GB hard disk and it's too large for RDPrep to work.

3 Open disks/drawers via CLI. It would be nice to open a drawer/disk (on any screen) by executing the command "C:OpenDir This:drawer/is/very/deep/and/takes/ages/to/click/to PUB=screen"

4 String manipulation. I have written a command called StringM that will perform either StrCopy, StrCmp, MidStr And Instr on a string I find this very useful for scripts using List but would prefer an officially released Amiga Version.

Bruce Steers
via email

Well, I can't say too much for fear of breaking the NDA I signed, but some of what you want will be in the new release of the OS.

EASY PDF?

I am an Amiga-only user from 1989, and it is amazing how many things I have done with my machine including making and recording songs, my University thesis, browsing, burning CDs, etc., so I was never interested in a PC or other computers. However, now I have encountered a serious problem which I can't solve because I can't find a suitable program. I can't easily see .PDF files which are becoming more popular on the net. I tried Ghostscript, which is very difficult to operate, space consuming, and boring, and XPDF which is very basic, and will not show most PDFs. Is it possible that there is no other easy but efficient program (PD/shareware) to view most PDF files or convert them to another format such as pics or FinalWriter files? Please help as I am getting very angry.
Stephen Mifsud, Malta

***AFCD44* contains APDF – a MUI-based PDF viewer that's excellent. Although it's based on XPDF it handles far more PDF files than that program can, and is also far more user-friendly, having a standard MUI user interface.**

NG SPECULATION

All this speculation about whether the kernel will be QNX or Linux and who will make the CPU will not determine the success or failure of the NGAmiga as the vast majority of people couldn't give a monkey's about either decision as they very probably have no idea how it will affect the finished article.

All I want is an efficient computer which doesn't crash every time you make a simple error and is adaptable to my needs. The £500 price is also immaterial as it is what you get for the £500 that is important. Paying out that money is fine unless you have to buy extra memory, hard disks, CD-ROM drives, modem, etc., to enable you to use the machine for the purposes you bought it. I know Plug & Play has become a much misused statement with regard to PCs but the Amiga cannot afford to be a Plug & Pray, otherwise people will not opt for it ahead of the opposition which in spite of it's faults is something most people are used to.

The bundled software also needs to be carefully selected to show a good range of applications and games to attract as wide a share of the market as possible.

These requirements are going to be difficult to meet in view of the special deals being done by the PC market by bundling scanners, printers & digital cameras with their products. If you scan the ads in *AF* for new systems then the £500 limit appears to end up as a towered 1200 with 030/40 accelerator with 8MB fastram with 4.3GB drive and another £100 for CD-ROM, modem and Internet software from Analogic or the Power Tower which has similar specs. Going by the *AF* surveys, the majority of Amiga owners already have a comparable system anyway, so the new Amiga has to be an improvement on those specs, or be expandable enough to utilise some of the existing hardware to get people to change. Entry level has to be able to use the different applications without having to go out and spend another couple of hundred quid to make it usable. It should also have plenty of scope for expansion for the specialist who really wants a super machine for his particular needs. I believe the NG has to sell different packs such as Internet, music, graphics and DTP so that each system is tailored to suit the requirements of the potential users.

The iMac has proved that there is still life alongside the PC and I really do hope the Amiga can survive and be successful, after all David once beat Goliath but the stone has to be spot on for accuracy for it to happen again.

yours sincerely,

Roger Buckley

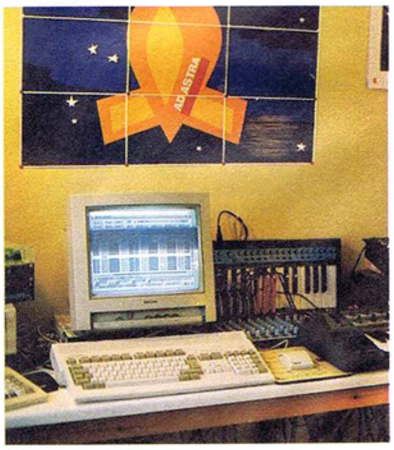
What you say would all be true if the NG was like the current Amiga, but it won't be. While software bundles may be thin on the ground to start with, the hardware that comes with a PC is generic and could be offered by anyone selling any machine. I have no doubt that the Amiga will get the same kind of deals.

SHORT AND SWEET

I would like to congratulate you on issue 127, I particularly enjoyed Tony Horgans article on creating music on the computer. I too am interested in creating dance music on my A1200 . Thanks for the great advice.

Martin Power
North Yorks

On behalf of Tony, I'll say thank you for the compliment.



Follow Tony's advice to create your own recording studio and head for the charts.

The Gallery

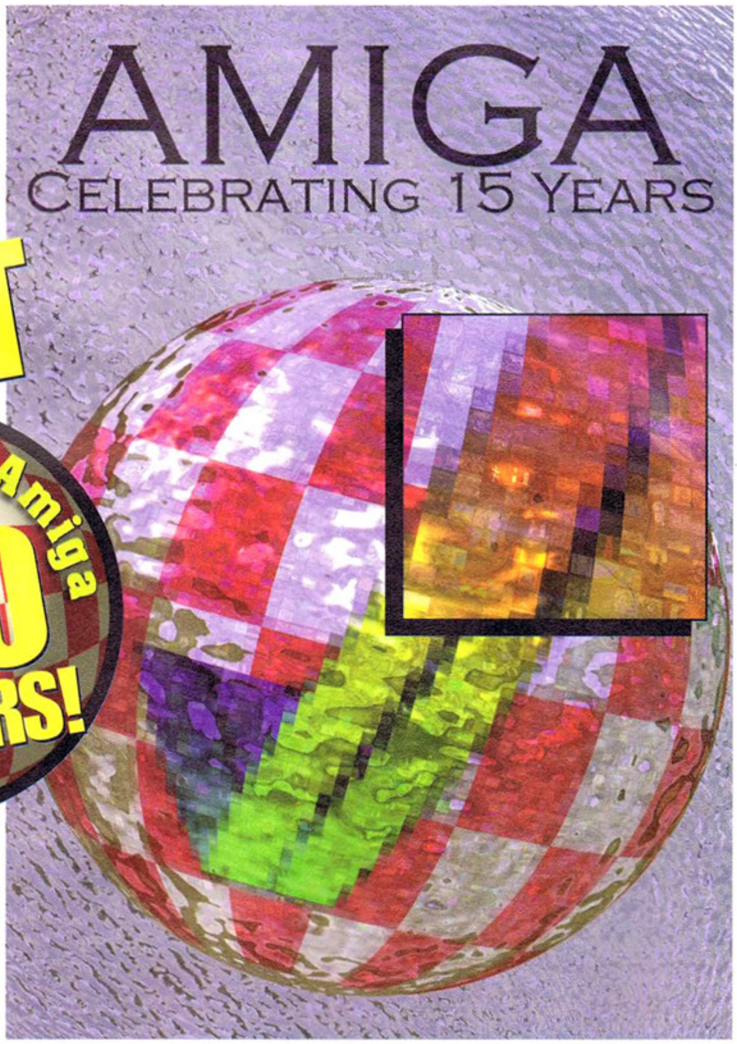
ON THIS MONTH'S CD

AFCD45:-ReaderStuff-/-Gallery-

Ben Vost is so powerful, he can give away two prizes for the best artwork



JOINT
Sponsored by Amiga
£50 WINNERS!

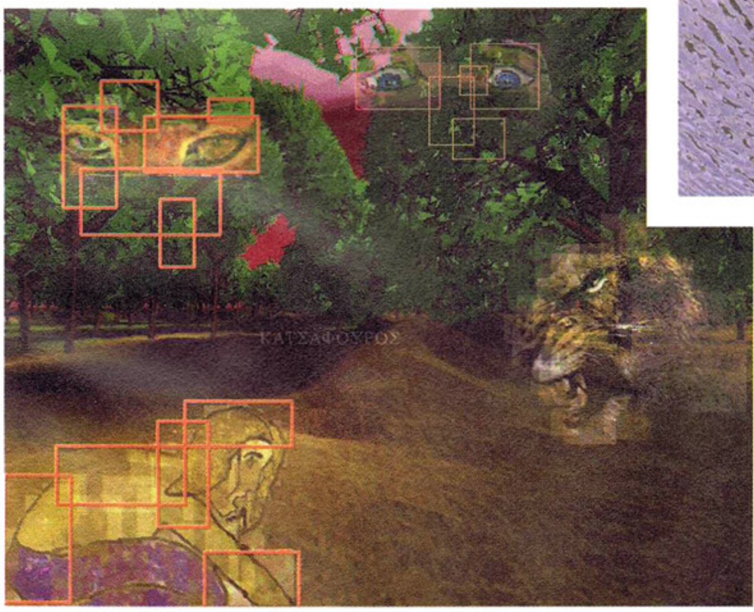


Liberty by Matteo Cavalleri

Matteo spent ages with his copy of TVPaint getting this image just right, and it's really paid off. Combining three images to get the dreamy water/sky effect with the balloon looks fabulous.

15_Years_Big by Andrew Herbert

Andrew's pic was to be relegated to the nice but boring pile. It wasn't until we looked closely at the large version we saw all the detail – you'll need something like ImageFX and lots of memory. Top notch work Andrew, have fifty quid on us!





2001, PressureFree by Dimitris Katsafouros

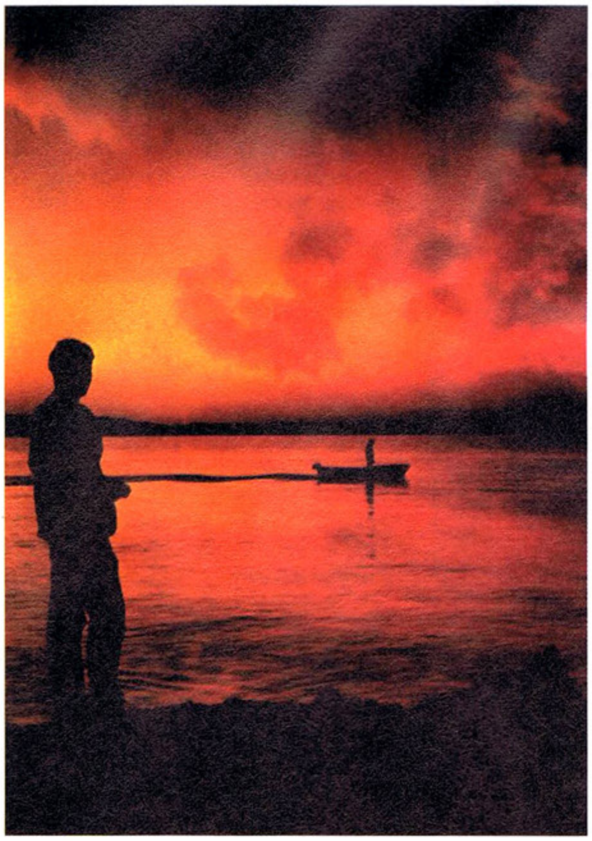
Dimitris regales us again with his pictures. This time we have a magazine cover depicting a fearsome mythical beastie indeed – the Lamia, and another he's put together in Cinema 4D.





CosmicGirl, JupitersDance, Lina's Eyes, Longing by Ogy

Ogy always produces excellent pictures and this new selection is no exception. The amount of image processing that goes into all these pieces is extraordinary, but we'd like to see some original pics Ogy!

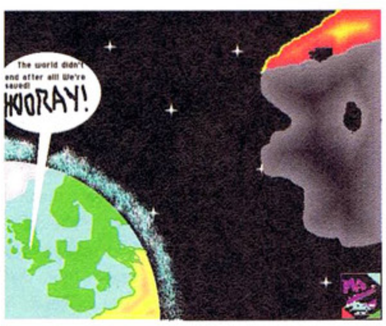






Picture by Ben Wright

Ben's (hey cool name! – ed) picture has the look of one of the hand-drawn intro screens from the Amiga's gaming heyday. Shame it doesn't have a better name.



End by Mark Dowling

We end this issue with a humorous cartoon from Mark. He reckons Nostradamus was wrong about the end of the world by about 1.5 hours. I guess no-one'll read this then...

CONTRIBUTIONS

If you'd like to enter your work (and it should be only your work!) for the Gallery section on the CD and the pages in *Amiga Format*, read the Reader Submissions advice on the CD (you can find it in various places) or simply make use of the form that can be found on the CD pages of this issue.



Serious AMIGA FORMAT disk



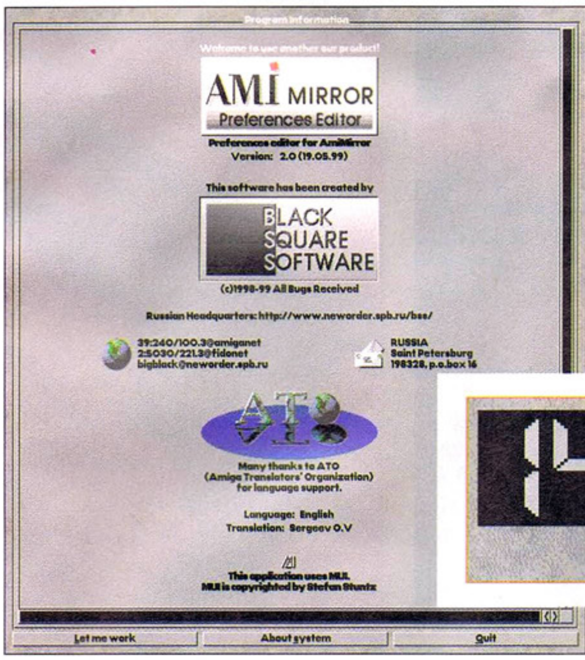
Errol Madoo brings you new ways to conquer time with ***CyberClock*** and ***Font Cache***. Plus boost your sound system and keep your files in their place

AmiMirror

AmiMirror is a program designed with three purposes in mind. Firstly, it can be configured to create spare (backup) copies of any files that are saved on your system. Secondly, it can backup old files before you replace them with new ones and lastly, it can backup files before you decide to delete them. Basically the program should be useful for anyone that believes in file backups or any of you that are too lazy to go through the process of full system file backups.

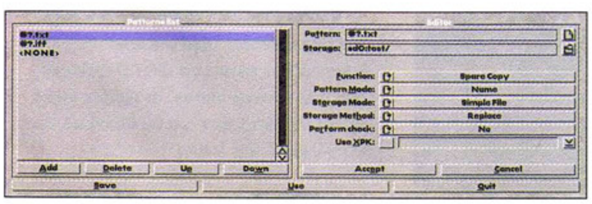
Once you have gone through *AmiMirror's* easy setup, you should never have another excuse to lose any of your important files, pictures or documents. Most of the configuration is done in the *AmiMirror* preference editor and basically it's just a matter of defining your own pattern match settings, what you want the program to do when it encounters a file being saved that matches that particular pattern and then saving your configuration.

AmiMirror doesn't include an installation script but all you need to do is copy its icon to your WBStartup drawer, copy the *AmiMirrorPrefs* file to your Prefs directory and then make sure that the path to the *AmiMirrorPrefs* program is correctly set up in the *Amimirror* icon's tooltypes. This tooltype is already set to look in your Prefs directory so should only be changed if you have plonked it somewhere else.



AmiMirror's preference editor's intro screen.

> ...you should never have another excuse to lose any of your important files, pictures or documents

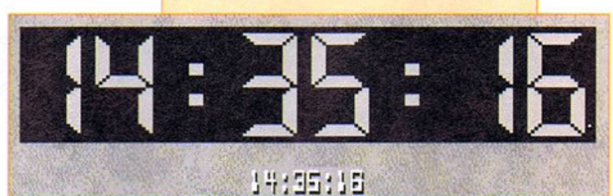


AmiMirror's simple to use Preference editor. Here I have set it up to save all text files saved on the system to be be duplicated into my Ramdrive's test directory.

CYBERCLOCK

Following on from the excellent analogue Backclock on last issue's serious disk, I thought that I'd include the pretty cool *CyberClock* as an alternative digital clock for your workbench. What makes *CyberClock* so cool (and different) is that it uses standard IFF brushes for its digits, leaving you completely free to design your own digit brush file and create your own customised digital clock.

An installation script is supplied to install the program's files and the only other thing you need to do to create your own customised version is to design an IFF file containing the digits, save it to your hard drive and edit the path to the file in the *Cyberclock* icon's tooltypes. It's really that easy!



Here are two of the example digit sets supplied with CyberClock.

YADI

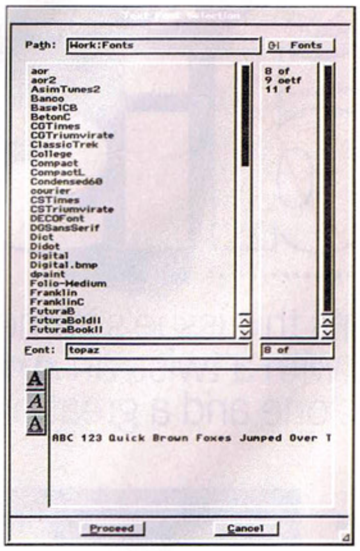
***YADI* is a small cli-only program to transfer disk images to and from Amiga devices. Although not a new idea, *YADI* is a little different because it can support disk images greater than 880K, which is the size of a standard low density Amiga floppy drive handled by trackdisk device. There are some programs that can support larger drives but they force you to supply the exec device name and unit ie. trackdisk.device unit 0, instead of df0:**

***YADI* version 1.1 featured on the *Amiga Format* subscribers disk 117 and since then the program, now at version 2, has seen a whole host of improvements including support for decompression of DMS files, the batch reading/writing of several disk images and enhanced control of any read/write errors.**

***YADI* should prove to be very useful to you if you need to store NDOS disks as files, make backups of devices, transfer Amiga disks to Amiga emulators or if you need to transfer Amiga disk images used in the emulators back to Amiga disks. *YADI* has support for any Amiga device that supports trackdisk commands, of any size, using any filesystem. This includes standard DF0: to DF4: (either low or high density), *CrossDOS* devices like PC0:, *CrossMac* devices, diskspare devices, RAD:, hard disk partitions and ZIP drives.**

Font Cache

When you have heaps of fonts installed on your system it can take a long time to read the contents of your fonts directory into a programs font requester. On some systems, especially on un-accelerated Amigas, this simple process can take an absolute age. If this applies to you and you are fed up with the wait, you'll be well advised to take a very good look at *Font Cache*.



This file requester took four seconds to display without FontCache and less than a second when using it!

In its simplest terms *Font Cache* is a system patch that is applied to the diskfont.library. It patches the AvailFonts function, resulting in a very quick font requester initialisation. As an example, with a font directory containing approximately 300 fonts, building the font requester takes only five seconds using *Font Cache*, compared with the normal half a minute. The patched library keeps the complete database of available fonts in a file on disk and reads this file instead of parsing the FONTS: directory tree. Thus opening a font requester is much faster, depending on the number of fonts you keep – this is not an additional RAM cache as the one supplied by the ASL or reqtools library, the cache is kept on disk.

Font Cache version 1.5 was featured on the *Amiga Format* subs disk 117 and this, version 1.8, has seen lots of improvements and bug fixes including the fixing of AMOS and Scala compatibility issues and the inclusion of an option to keep the cache file sorted which speeds up loading its font list into reqtools requesters. Installation is quite straightforward, but I would advise that you read and fully understand the author's readme file before attempting the installation.

With a font directory containing approximately 300 fonts, building the font requester takes only five seconds using Font Cache

SAMED

***SamEd* is an excellent little 8-16-bit mono/stereo sound sample editor that has been designed to be easy to use and yet powerful and expandable. It makes full use of the AHI system in order to be compatible with the majority of sound hardware and MUI allowing it to have a customisable and scalable interface. Although *SamEd* has only one edit window, this should not be considered as a limitation as it simply means that it's easy to see what's happening and all your focus is directed to the one display.**

***SamEd* features a powerful 'external process' launcher allowing any developer to produce his or her own sound effects. The 'external process' system has a quick and easy interface to allow programmers to get data from any sample and alter it as they wish. This system relies on multitasking and creates a multithreaded editing system. To use *SamEd* you will need to be running AmigaOS 3.0+ and have both AHI and MUI installed.**

MEMMON

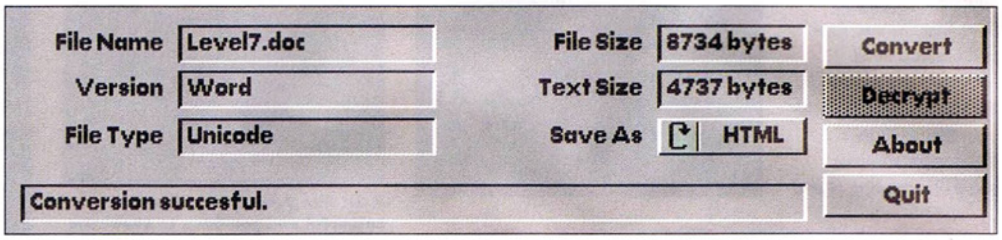
***MemMon* is a program that displays how much chip/fast mem is available and can also display totals and largest blocks. It is also able to give warnings when any of the memory levels falls below the definable settings. These warnings can either be a change in the text display colour in its window or a beep screen warning if the window is not able to open on the frontmost screen.**

***MemMon* can also be set to follow you to the frontmost screen (if public) as you flip between different screens. It will "remember" the X and Y screen positions on up to 20 different screens in any one session. It can also be "hidden" and will re-appear if a warning needs to be given. *MemMon* is fully controllable via its 14 tooltypes, user-defined hotkey combinations or with a commodity exchange program and should work on all Amigas. Installation, yeah right! Just copy its icon to your desired location, adjust some of its tooltypes, if you want, and then double click on its icon to spring it into life.**

Word Converter

This program is a useful tool for everybody who needs the possibility to read documents created with Microsoft's *Word*, the industry standard word processor that's widely used on both Windows and Mac platforms. Thanks to *Word Converter*, you are able to convert documents created with *Word* for DOS or Windows version 2, 5, 6, 7 and 8 and *Word* 4, 5 for Mac or even import them directly into PageStream 3 DTP program or *CygnusEd* text editor through additional ARexx scripts. As an additional feature *Word Converter* also allows you to easily decrypt all password protected *Word* documents.

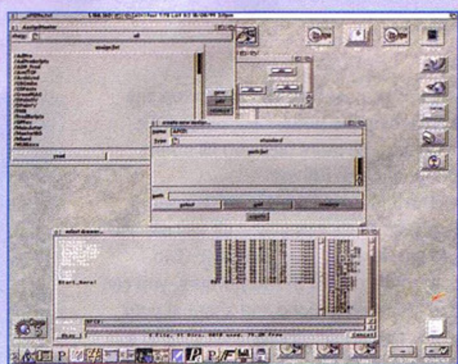
Installation can be performed by the included installer script or you can do it manually by copying its files to various locations on your system's boot drive. *Word Converter* requires OS2.04 (v37) or above and reqtools.library to run. For context help, OS3.0 (v39) or higher is required and if you require locale support, you'll need OS2.1 (v38) or higher. All memory requirements are handled dynamically so you are able to use it even if you are low on memory. A hard drive is not required, but recommended.



Here I have configured WordConverter to load in a Word document and have it as HTML.

ASSIGNMASTER

***AssignMaster* is a nifty little tool to handle assigns from Workbench. If the word "assigns" makes no sense to you, assigns are required by some programs to let them know where their files are and the lack of the correct assign usually manifests itself with a requester that displays an error something like, "Please insert Volume x in any drive". *AssignMaster* features a nice GUI and all features of CLI "assign" command are included. It is also possible to use *AssignMaster* to create all your system assigns at boot time with only one program call.**



Here I am setting Assign Master up to assign the AFCD hard drive partition to the System.

To use *AssignMaster* you will need at least OS3 with Kickstart v39. *AssignMaster* can be run either from CLI or from Workbench and using it is easy since all configuration is done in the main edit window and this is opened by pressing either the "edit" or "change" button. Drag and drop for Workbench icons is also supported making assigning even easier.

Games disk

AMIGA FORMAT

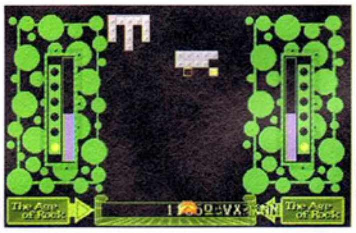




Errol Madoo presents this issue's games disk which features a ***Tetris*** game with a twist, an ***Arkanoid*** clone, a ***Bomberman*** clone and a great brain stretcher

Age of Rock

Age of Rock is a game based on *Tetris*, but unlike the numerous *Tetris* clones out there, this one has a real twist and a pretty original one at that. *Age of Rock* is basically a shoot–em–up *Tetris* and, instead of needing to rotate oddly shaped tiles as they quickly move across (or down) the screen, the aim of this game is to shoot square blocks at the oddly shaped tiles to create full rectangles (or squares). Once you have filled in the "gaps" and created a full rectangle out of one of the tiles moving towards you, that section disappears and you carry on shooting at and

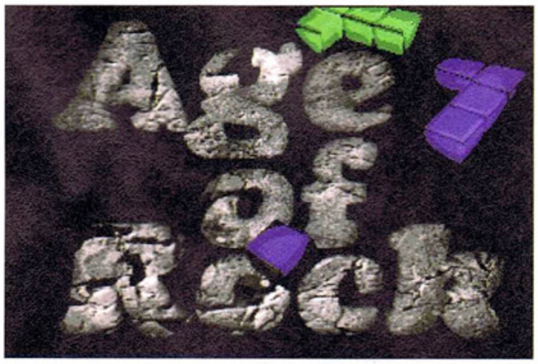


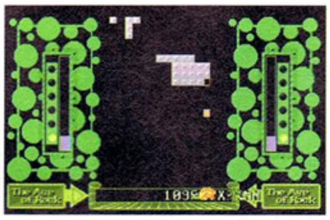
> *Should you find that it is all too easy you can try doing a "joystick down" to speed it up a little and make things really interesting*

filling up the next one. You must stop any tiles reaching the bottom baseline of the screen and the more tiles you fill up the more points you will get.

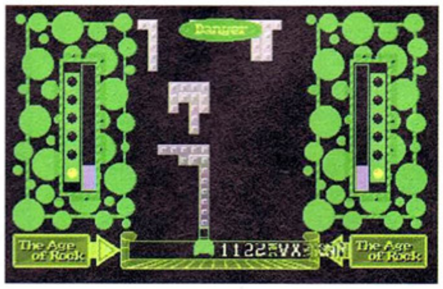
The game features 5 game modes. In one player mode you play until you die and try to get the best score possible. Two player mode comes in two flavours, you can either play with a friend and shoot at your own tile colours or you can play against a friend, trying to stay alive longer than he does. Further points are available throughout the game in the shape of extra balls, which need to be shot at (and hit) to improve your score.

The game is controlled with the joystick and should you find that it is all too easy, you can try doing a "joystick down" to speed it up a little and make things really interesting. Installation is simply a matter of copying a couple of libraries to your system's Libs: directory (although most of you may already have them), copying the two *Age Of Rock* fonts to your system's assigned fonts directory and moving the rest of the *Age of Rock* directory to your chosen directory. The game should work on all Amigas.





A bit like Tetris, except less colourful and you have to shoot the bricks.



ARKANOS

This is a simple clone of, you guessed it, *Arkanoid*. The game opens with a couple of information screens (which can be bypassed with a mouse click) that give details of the 16 bonus blocks and 18 bonus tiles available in the game. Bonus blocks, the ones that you need to hit with the ball, include some pretty nifty powers that can cause your ball to bounce in an unpredictable direction, act as dynamite or even create a short cut through the tiles. The Bonus tiles, the ones that drop randomly down the screen and need to be collected, also add some spice to the game and these also effect the gameplay in numerous ways. Expand paddle, shrink paddle, catch ball and slow ball are all pretty standard but tiles such as the "Get Killed" paddle instantly kills you and should obviously be avoided.

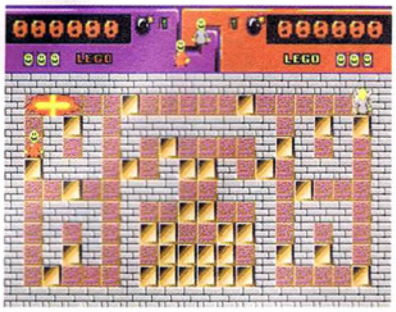
***Arkanos*, which should work on all Amigas, requires no additional files so installation is accomplished by simply dragging its directory to a location on your hard drive.**



You know the score, just keep the ball in the air and destroy the bricks.



Boomin' Eck

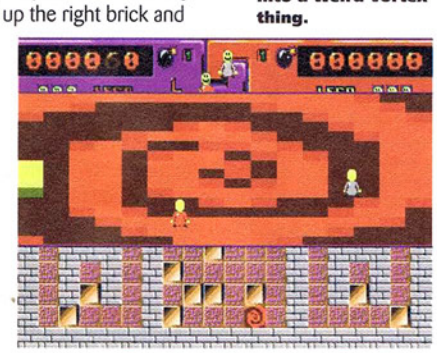


Frantic two player fun in Boomin' Eck. It's a lot like Bomberman.

A crisis was happening in Legoland. The machines that created the little Legomen were goofing up more than normal and started creating reject Legomen that had no legs. Two of these newly created rejects weren't having any of it and wobbled off to find Dr. Technic, the creator in Legotowers. On hearing their sad story, he scratched his head, paused for a second and offered them both a challenge. "My mazes are becoming cluttered with loose bricks which are making them very untidy and difficult to wander round. If you can clear them as best you can I will award you with a very special gift. I have one solitary pair of legs left and I will give them to you if you complete your task. If you fail to get through the mazes then you will die and spend the rest of time wandering around. Your task won't be easy, oh no! The mazes are filled with the ghosts of dead Legoman that have failed the challenge."

If you have ever played *Bomberman*, you should know what to do in *Boomin'Eck*. This, the demo version, contains five separate maze levels and your aim is to find the way out by blowing up the bricks that are stopping you with your bombs. You wobble round the maze (remember that you have no legs), come up to a brick, drop your bomb (with your joystick's fire button) and then leg it before the bomb explodes. While all this is going on, and you are still searching for the hidden exit, ghosts are wandering round the maze and if they make contact with you your life drains away. All is not lost though, you will find several types of powerups that either give you more points, give you more bombs or enhance your bomb's range capabilities. With any luck you will blow up the right brick and uncover the exit which will transport you to the next level.

> You wobble round the maze... come up to a brick, drop your bomb and then leg it before the bomb explodes



When you finish a level, your Lego men get sucked into a weird vortex thing.

The game features either one or two player game modes. In one player mode you are given the option to set any of the seven levels of difficulty and in two player mode you play with a mate and try and get more points than he does. *Boomin'Eck* is completely self-contained and installation is just a matter of dragging its directory to the location of your choice. It should work on most Amigas that have at least 1MB of Ram, although the author doesn't think that it will work on an A500 and we are unable to test this. Furthermore, *Boomin'Eck* requires no additional fonts or libraries.

ULTIMATE_QUIZ



Shoot-'em-ups are great for exercising trigger fingers but there's nothing like dusting away the cobwebs and giving your brain a good old workout. The original *Ultimate Quiz* received a pretty impressive 95% rating in the April 1995 issue of the now defunct *Amiga User International* April and also appeared on the AUI coverdisk a year later. It was then updated and released as a full Licenceware title with F1 Licenceware until it was decided to release the full and unrestricted product. Andy Gibson, the program's author, has done a great deal of work and created this version featuring a whole host of improvements over the original product.

As you will have guessed by the name, *Ultimate Quiz* is a quiz game that contains more than 1,000 random questions, split into 10 distinct categories, including specific questions on topics such as *Star Trek, Red Dwarf, Dr. Who* and movies. If you have ever tried an Amiga quiz game, or you think that all Amiga games are easy, you can think again. Andy solicited the help of die-hard fans for most of the categories so you can be guaranteed that you will have to be pretty clued up (or very lucky) to complete a particular section.



How much do you really know about Hitchhikers' Guide to the Galaxy? Find out with this quiz.

To load the game, simply double click on the quiz icon and you soon see a short intro screen, which can be skipped using the left mouse button. You will then be presented with the main question block screen where you can select any of the 10 question categories. As already mentioned, *Ultimate Quiz* is quite comprehensive and features 10 categories of questions containing 100 questions in each. With such topics as Pop Music, TV programmes, Movies and General Knowledge you should find a category that suits you. The game is played using your mouse (but your brain might also be needed) and the aim is to gain as many points as possible by answering multiple choice questions against the clock without losing your precious credits. If you answer a question wrongly, or the timer runs out, you lose a credit. Lose all your credits and the game's up. The game also features a scrolling help screen and a separate high score table for each of the question categories. Each question is picked at random from its databases. This means you won't ever play them in the same order any time you play. This should give the game some lasting appeal.

The author has tested the game on an A500 with WB1.3, an A500+, an A600, a standard A1200, an expanded A1200 and an A4000/40. I tested it on all the Amigas here and it performed faultlessly so, all you die-hard Amigans out there that refuse to upgrade your machines should be happy with this one. It must be said that the author recommends that you should have a minimum of 1MB but I was unable to test this so if you have less than a meg in your Amiga you have two choices. You can either pray that it works or bite the bullet and upgrade your machine. All the files that *Ultimate Quiz* needs to run are contained in its drawer so if you are capable of dragging the *Ultimate Quiz* drawer icon to the desired location on your hard drive you'll have the installation cracked.

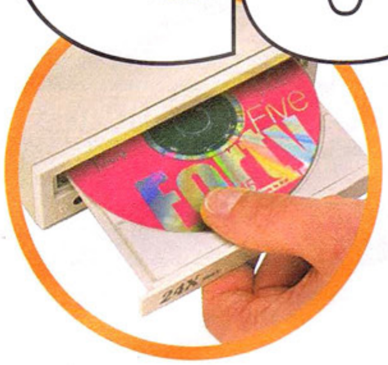
DISK NOT WORKING?

We take every care to test the coverdisk software, but Future Publishing cannot accept any responsibility for any damage occurring during its use. If your disk is faulty, send it back, with 2x26p stamps and an SAE to:

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If there is a manufacturing error then the stamps will be returned with a replacement disk.

Coverdisc





AMIGA FORMAT

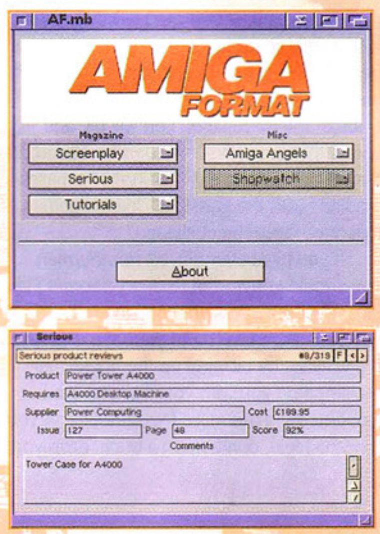
Our coverdisc is now 45 issues old. But it's far from languishing in the noon of middle age, as Richard Drummond finds out

WHAT'S NEW

As ever, *Amiga Format* is putting even more information at your fingertips with a new feature starting in this issue's coverdisc. In the +System+/Info drawer you can now find AFBase, an extensive database facility created by Oliver Roberts using Steffen Gutmann's powerful MUIbase program.

The database is divided into two main parts: the first contains details of the games, serious reviews and tutorial series that have appeared in the magazine over the years; the second provides our handy Amiga Angels and Shopwatch listings that previously appeared in the magazine. So, if you want to know what a game scored in one of our reviews you no longer have scour through all your back issues, you can simply look it up on AFBase. Please note, that the database is not yet complete. A fuller version will appear on next issue's coverdisc.

Remember that we are always open to suggestions for our coverdisc. Please let us know how you get on with the new database and if you have any comments or ideas for improvements, then let us know.



AFBase is the easy way to look up information from previous AF issues.

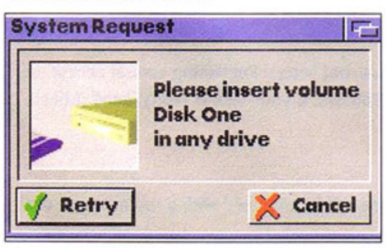
IMPROVE YOUR WORKBENCH

-Serious-/WB

The default Workbench3.0 desktop might have been revolutionary in 1993, but by today's standards it looks woefully drab. Luckily, there are dozens of tools and hacks which you can install to give your desktop a new lease of life. As per usual, we have some of the best on our coverdisc.

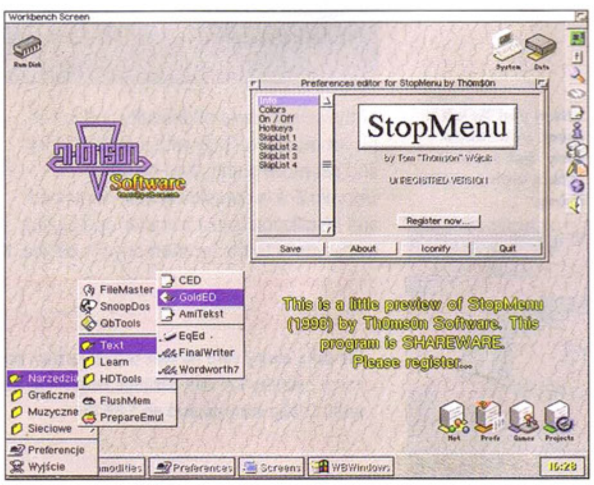
VisualPrefs is a cunning little program which can completely alter the look of your Workbench. It allows you to customize all system and GadTools gadgets, changing the pens they are rendered in, their imagery and even the frames that surround them. It can also alter the border colours of active and inactive windows and even change the positioning and colour of window titles.

Who remembers *ARQ*? This was a hack which modified the appearance of AmigaOS's system requesters – even allowing them to contain animated images. *ReqAttack* is a new, more OS3.0-friendly version of the same. As well as beautifying and bringing some life to otherwise dull requesters, it allows easier control. The options can be cycled through by pressing the TAB key or cursor keys and pressing RETURN to select, or a requester can be cancelled by hitting ESCAPE. *ReqAttack* can also force requester windows to pop up on the centre of the screen.



> *FastIPrefs is faster, has better palette-remapping, uses less memory and is more compatible with graphics cards than the original*

One of the most famous features of Windows95 was the Start button. While experts may argue it is nonsensical to have a button called Start which you have to click to shutdown the machine, it seems to have struck a chord with users – so much so, that people have created similar systems for the Amiga. *StopMenu* is just such a beast. It creates a Windows-like bar which only pops up when you move the mousepointer to the bottom of the screen. This bar contains a series of buttons and a clock. Each of the buttons pops a series of menus. One can be used to launch applications, one lists all the editors in your prefs drawer, one can control screens and one windows. *StopMenu* can be easily customized with supplied prefs and menu editor programs.



The Amiga is about choice. So if you really want to give your desktop a horrible Windows-like start bar, you can.

One of the new features shipped with Workbench 3.0 was the ability to put user-definable patterns and pictures in the backgrounds of the desktop and Workbench windows. While this system worked well for a time, it really needs an overhaul to work with today's machines.

FastIPrefs overcomes some of the limitations of the original. It is faster, has better palette-remapping, uses less memory and is more compatible with graphics cards. It also has many new features such as the ability to lock pens and it can tile or centre pictures within a window. A new WBPattern prefs editor comes with the package to take advantage of these extras.

Your Stuff!



This issue's winner of the coveted prize for the best reader's contribution is Lionel Woodbridge. His entry is an excellent multimedia guide to the Solar System created with *Scala MM300*. It features detailed information, pictures and animations courtesy of NASA and really show off what *Scala* is capable of. Mr Woodbridge has converted all the animations to the CDXL format to achieve good quality playback direct from CD, even on a basic Amiga.

We were also sent two websites by readers for this issue and they both show the strange things that you lot get up to with your home pages. The first is from Ragnar Fyri and is a showcase for his lyrical talent. Well, almost. It contains the words for dozens of songs that he has written. The other is by Nicolas Ramz. He has dedicated his site to his girlfriend Emilie. Poor girl. She must be very embarrassed.





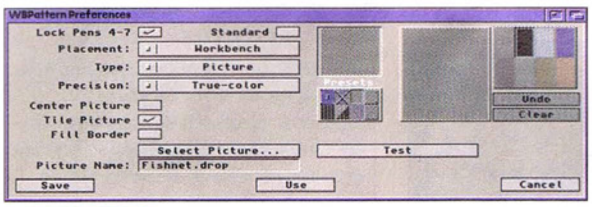






Explore the Solar System from the safety of your living room with this great reader's entry.





FastIPrefs is your ticket to a faster, better-looking desktop.

PAINLESS COMPRESSION

-Serious-/Archivers

Compression technology, the endless pursuit to fit something that's huge into something that's tiny, is becoming ever more ubiquitous, especially due to the Internet. The aim is no longer just to try and cram as much data onto some storage medium, it's about reducing download times. After all, the shorter the file, the smaller the phone bill. However, most of the available utility software for the compression and decompression of data is not particularly user-friendly.

Typically, such tools must be called from the command line with a list of arcane switches and commands. Thankfully, several enterprising Amiga users have created graphical front-ends for these systems which help to make life so much easier.

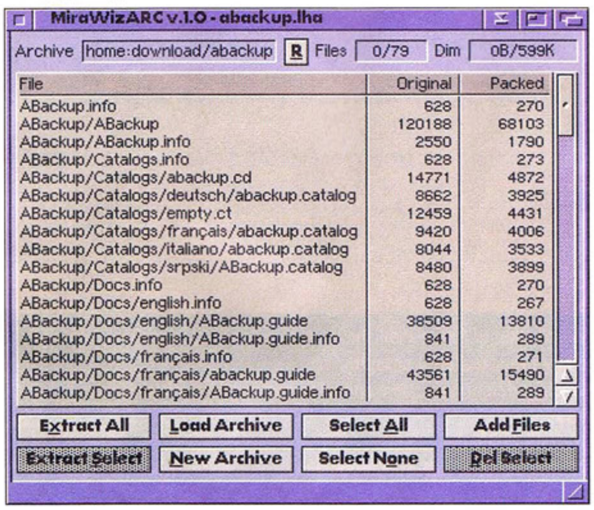
The first of these offered on our coverdisc is EasyExtract. It is a simple tool which has file requesters so you can execute and select an archive to unpack and choose a place to extract it to. It can also be used as the default tool in an archive's icon, so that it can be unpacked with merely a double-click on the icon. It supports LZX and LhA archives, but these tools must be located somewhere in your command path.

MiraWizARC is a tool similar to the famous *WinZip* package available on PCs or Vapor's excellent *XArc* for the Amiga. It provides a full GUI which allows the creation and extraction of file archives. It supports the most commonly used formats used on the Amiga, LhA, LZX and ZIP and allows complete control of nearly all of each the archiver's features and commands with a clear MUI interface.

Lastly *XPKatana* provides an easy to use GUI front-end to the XPK compression system. XPK is a shared library which supplies a common interface to applications programmers for the compression of single-data files, whether text files, audio, video or whatever. *XPKatana* features a clear interface with drag'n'drop and an AppIcon. It also has an ARexx port which allows easy communication between *XPKatana* and other application software. Scripts are also

Continued overleaf ➡

Let MiraWizARC take the pain out of managing file archives.



HANDY HELP

-Serious-/WB/AHelp1_3

AmigaOS has a default place for the location of help files, appropriately called the HELP: directory. While much software stores their manual or guides here, unfortunately there is no standard tool for displaying these. Unless, for example, a particular program supports online help, then viewing a help file would entail finding the right file and loading it into Multiview. AHelp is a little tool to make this job a lot easier.

Once installed, AHelp can be popped up with a hot key combination. It then allows you to browse simply through the contents of your HELP: drawer and launch Multiview with a simple key or mouse button press. It is easily configured with the supplied Prefs tool or via its tooltypes and you can select its 'home' directory and the file viewer it uses for displaying files.



With AHelp you need never worry about losing your documentation

CALIDAN

-ScreenPlay-/Shareware/Calidan

The genre of real-time strategy games which are currently so popular was pioneered on the Amiga with titles such as *Dune II*. In recent years, as Amiga gaming has waned, the development of this type of game moved to PC. Now, however, we see the Amiga redressing the balance with innovative games such as *Napalm*. And here we have an excellent freeware *Command and Conquer* type game for the Amiga: *Calidan*.

Calidan is a mission-based real-time strategy game in which you must control your vehicles, mine lidium ore, build refineries, factories and more vehicles and overcome the enemy. This version contains only three missions, but more can be created with the supplied editor.

Not only is *Calidan* a superb game in its own right it is an example to hold before other games programmers. It features fast, colourful graphics and yet is completely OS-friendly. It proves that you don't have to bang the metal to create a playable game.



Test your tactical skill with this new real-time strategy game, Calidan.







provided so it can be integrated with *FinalWriter* and *DOpus*.

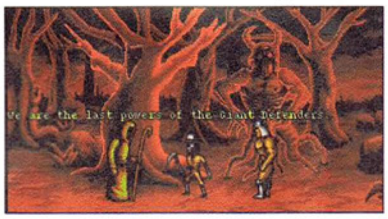
LORD OF ALCANDRIA

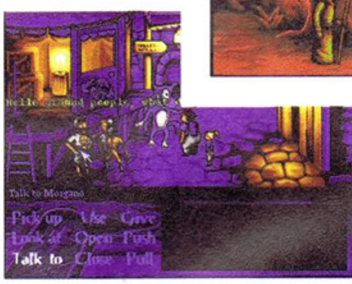
-ScreenPlay-/Shareware/Lord_of_Alcandria

In this point-and-click adventure you play the role of Krilok Rainwood, a great warrior. You start the game just as Krilok is being raised from the dead. But why and by whom? You'll soon find out it's all been a case of mistaken identity. But since you're here anyway, you may as well pit yourself against the evil Hellock. Right?

Lord of Alcandria is a game which firmly follows in the footsteps of the *Monkey Island* series with the same cartoon-style graphics, cheeky characters and even cheekier dialogue. The game will work on any Amiga that has 2MB of Chip RAM.

In Lord of Alcandria, as per usual, the task of sorting out the evils of the world falls on your shoulders.





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Your *AFCD* should only need replacing if the CD itself cannot be read. If you're experiencing problems with an individual application, phone our technical support line This is open between the hours of 2pm and 5pm every Tuesday.

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Email: amformat@futurenet.co.uk

(Please remember to put "Coverdisc" in the subject line.)

Please note that the helpline staff provide assistance with technical problems directly related to the CD and cannot provide training on the software or hardware in general.

We want your work!

You can either send it to us on floppies, Zip disks or CDs (we do take other media formats too). If you are going to send us a multiple floppy backup of your work, please use the version of *ABackup* we supply on the CD in the +System+/Tools/Disk_Tools drawer. We'll return any Zips you send us, so don't worry about getting your disks back.

If you have any further queries about how to send your software in then consult the Submissions Advice on the CD (in Start_Here!, or in the ReaderStuff or +System+/Info drawers).

Files you send this month will probably appear on *AFCD47 – Amiga Format's* Christmas issue!

Please tell us:

Your name: ....

Your address: ....

....

Your postcode: ....

A contact number or email address: ....

Your signature: ....

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Memory expansion utility. Increases Chip/Fast RAM to almost 1GB (WB2/3). Other utilities available plus 50 games all for £30! ☎ Martyn 01788 817473

Loads of Amiga games (some serious) software for sale – cheap as need space. Please send SAE for my list of assorted titles. J Clark, 11 Pool Street, Crossens, Southport PR9 8Hz. (1980's - 1990's). ☎ 01704 506599

Citizen ABC colour printer, two black ribbons, 2 colour ribbons, boxed with manuals and software. £30. ☎ Paul 01934 511303 (Weston)

Deluxe Paint V CD also floppies with printed manual, £8 each. Amiga Forever, emulates Amiga on PC, includes Personal Paint 7.1, £15. P&P included. ☎ 01453 882912

Videotech VCC 3010 RGB corrector/video enhancer. K.R.P. TES30 video edit system with any Amiga. Lola 2000 Amiga Genlock. Soundmaster audio capture module with Audiomaster 4 S/W. Offers please. ☎ 0113 293075

Squirrel SCSI interface, boxed, manuals, software, £40. 8MB RAM card for A1200 with RTC, FPU socket, £30. Digital "freewheel" joystick, £15. All hardly used. ☎ Simon 01902 839801 (West Midlands)

SCSI 2GB hardrive, £50. SCSI 500MB hardrive, £20, boxed original games and utilities from £5. ☎ Terry 01709 814296

Amiga magazines, many titles including *Amiga Format*, Amiga Power, CU Amiga, etc. Can split at £1–£2 each or do bulk deals. ☎ Paul 01935 410274

Monitor Amiga M14385 14", £75 ono. ☎ 01789 296952

HP Deskjet 660C colour inkjet printer 600 x 600 dpi. Black and colour cartridge cradle. All original documentation and packaging included, £45 ono. Also, 8MB memory SIMM double sided, £10. ☎ 01762 832238

Sound card Toccatta, suit A1500 to A4000 16–bit, stereo 48KHz, record and playback works with Samplitude Octamed and AHI, £60. ☎ 0191 3858599

Turbo Print v6 £20, Breathless £15, Fears £4, Worms £4, Foundation CD £18 plus Hewlett Packard 420C printer £50 and Saitek joystick £4. ☎ Ben 01705 386388

A1200, Zorro II, 8MB RAM, 520MB HD, 3.0 OS, original software and manuals, £80 ono. ☎ Mel 01733 558243

50 Amiga games for sale on disk, plus instructions. China Challenge, Triclops, Paranoids, etc, £20. Also Text Engine 5, Deluxe Paint 3, X–Out, Aegis Animator, £15. ☎ 01788 817473 after 5pm

Amiga magazines for sale, various magazines CU, AF, OA, AU, AP, AA, AS. 54 magazines from June 1992 to August 1996. All good condition (but no cover disks), £2 each including P&P. ☎ 01228 596399

A1200 hard disk, Philips monitor, Panasonic 2135 printer. Lots of software, A500 three external drives. Buyer collects, £100 the lot. ☎ 01295 258708

A1200 (AGA) Eyetech Tower, 68030 8MB 16x CD–ROM, 2.1HD, PC KB stereo speakers in tower, £400. Also A1200 (ECS) desktop plus SCSI CD–ROM, £70. ☎ 0121 5573604

A1200 CD–ROM HD, 4MB RAM, board, CD's, floppies, all manuals, £150. ☎ 01553 761864

A1200 170MB HD, Blizzard 68030 50MHz Accelerator 10MB RAM, second floppy drive, joystick, two mice, dustcover, loads and loads of games, programs, demos and magazines, Canon BJ200 printer, £300 ono. ☎ 01924 829381

A1200 Microvitec monitor, Squirrel 2 x CD-ROM, 170 HD, 6MB RAM, second floppy drive, speakers, 100 CDs, 200 floppies, spare A1200. Various games in boxes £600. ☎ 0181 3024855

All sorts of Amiga stuff for sale: assorted magazines, 32 mint condition for £25 or with cover disks (49 disks), £40. Serious software and games both old and new titles (cheap). ☎ 07050 688469

***Amiga Format* cover disks and magazines, 27 CDs** and 35 floppies covering 1993 to 1999. Will not split. Bargain, £35 the lot. ☎ 0116 2770091

64MB SIMM 72-pin, 60ns, FPM, double-sided, £65 including postage. 32MB SIMM, as above, £35. Cinema 4D v4 CD-ROM package, all manuals, unused, mint condition £50 plus £3 P&P. ☎ 01405 860798

4MB RAM board for 1200 including FPU. Simon The Sorcerer, AB3D, Space Hulk games. Swap for Eyetech mini-tower or £45 cash. ☎ Becky 0114 2652206 or email becky@free4all.co.uk

16MB double-sided SIMM. Email Simon at Jinky@free4all.co.uk

Picasso IV cards, Zorro II slots (with video cable) for A1200T. 200W Goliath power supply, Devpac 3 assembler. ☎ 0141-634 2344 or email graham@cafeinternet.co.uk

WANTED

Looking for Lords of Chaos by Blade software. Boxed, any condition. Good price paid. ☎ 0141 3575288 or email geo@2-cool.co.uk

Ultimate Amos book desperately wanted. Must be in good condition (including disk). Also looking for any Amos manuals. Willing to pay good prices. ☎ Jason 0181 9496400

Eyetech 630/33 accelerator board for A600 non-pop. or pop. to 32MB. ☎ Stan 01328 851538.

Young enthusiast needs help compiling history of all Amiga machines (Including CDTV and B2000). I need technical specifications, release dates and photographs. I also need to contact anyone who was involved in, or has any information about, Metacomco (The Bristol based firm who developed the OS for the A1000). For more information send an e-mail to Mike@Morleysoft.freeserve.co.uk with "Amiga History" in the subject line.

AGA extension wanted for Amos Professional v.20. ☎ Gary 0181 5565236

Old Anco football games wanted. For example, Player Manager 1, Kick Off 1/Extra Time. Any condition. ☎ Matthew 01895 832472

Amiga Format's June cover disk 'Workbench Enhancers'. (I lost my copy), can anybody help! Please reply by email to: skippy45@connectfree.co.uk

Can you help? I desperately need a manual for Citizen ABC 21 printer. Please phone any time. ☎ Mike 01942 324764

Space Crusade and Data Disks, Space Hulk. Will pay a good price. Thanks to all the people that have responded to my adverts in the past. Cheers. ☎ Martin 0171 495 2657

Has anyone got a Zorro II-compatible graphics card for under £100? Also needed 68882 PGA FPU and non-volatile PCMCIA memory card. ☎ Anthony 01474 706114

Blitz basic 2.1 manual required. Not on disk. Please help. ☎ 09422 272762. Ask for Matthew.

Amiga hardware wanted. I will pay any price for CyberSCSI, Fastlane Z3, V-Lab Motion, Delfina Lite, Maestro Pro, DPS-Par, Triple Play Plus, Cyberstorm MK III (060). ☎ Leroy 01903 603364 anytime.

Desperately seeking Image Master RT and Montage 24 graphics software. Cash waiting. ☎ John 01603 743827, email john@woodgatey.freeserve.co.uk

Anybody with an A4000 desktop upgrading to PPC? I need a CPU board, '040 or '060, for my Amiga. I can pay from £50 to £75. Email paularnold@free4all.co.uk or ☎ 01903 739069 after 6pm and ask for Paul.

Protext 5.5 or 6.0 Wordprocessor with manual. Floppy disk only. ☎ 01582 725595 anytime (Luton area).

Bloodnet AGA or CD32, Prey CD32, Beneath a Steel Sky CD32. I'll pay up to £12/30DM per game. Email ancor@datacomm.ch.

I'm looking for Final Writer, higher version than Final Writer Lite. As high as possible, reasonable price please as I am disabled and unable to work. I have an A1200. ☎ 0161 8655537.

PD's Soft CDs: Hottest 1, 2, 3, 6, Utilities and Megademos. WS's Multimedia Toolkit 2, AMUC Collection, EMC 3, 4, WOTW 92 CD, BCI Net 1, 2, CDPD 1, 2, 3, 4, Fresh Fish Collection. Others considered too. Originals only, please. Write to Philippe Dumont, rue Lombry 7, 4920 Aywaille, Belgium. Email hibisch@hotmail.com

TabbyControl driver disk for Tabby graphics tablet. I only need the original software. ☎ 01744 607313, ask for Mike.

PERSONAL

Also see the AmigaAngels document on our CD.

I am an Amiga artist/musician wanting to do graphics or music for your PD, shareware or games. Highly proficient with Octamed, Soundstudio and Deluxe Paint. Both AGA and standard Amiga formats. ☎ Vivian 001 505 835 2841 (New Mexico).

Amiga contacts wanted to swap games and ideas Contact: Mr G Emery, 3 Scott Ave, St Budeaux, Plymouth, Devon PLS 1HQ.

Any Amiga users new to the Internet who want some free links/gallerys and downloads to get them going can go to my site at: http://www.g251273.freeserve.co.uk or email me (Paul) at: pol@g251273.freeserve.co.uk

Any Amiga magazines or disk mags require another contributor? Knowledge of A1200 and other Amigas. Will work for free. Article previously published in *Amiga Format*. ☎ Ross Whiteford 01738 850732

Looking for email pals in any area. Just got connected to the Internet so looking for contacts. Email Duncan McGregor at: dkm@free4all.co.uk

Do you want Worms DC levels, but don't have a CD-ROM? Simply send a disk and 50p to: Mick Galvin, 84 St Cuthbert's Cres, Albrighton, Nr Wolverhampton WV7 3HW

Amiga contacts wanted in the Edinburgh area contact Gordon Lawrie, 21 Wilson Terrace, Broxburn EH52 6EP

World of Amiga Issue 4 is now available and includes in depth reports on the WoA99 show, The Amiga Tech Brief, The Amiga Linux announcement and more. Download now from the new website: http://web.ukonline.co.uk/trogsoft/woa

BBSes

Send your BBS ads to the usual Reader Ads address. BBS ads will be printed for three issues.

Alpha Zone BBS, over 10,000 files, online CD-ROMs, 56,000bps and free email. ☎ 01788 551719 after 10pm.

Bobbs, ☎ 01243 371644, online 24 hours. Based in Hampshire, south east, host for Powernet. Loads of files, home of BullRPG, The best Amiga Lord clone. Speeds up to 56K.

Skull Monkey BBS, Lincoln. Online 24 hours. ☎ 01522 887933. Friendly sysop. Email sns@skullmonkey.freeserve.co.uk

Want to chat about anything and everything with people all over the globe? Then join Fluffynet – the fluffiest Fido-style BBS mail network! ☎ Total Eclipse BBS, +44 (0) 870 740 1817 or visit http://www.fluffynet.n3.net for information on how to join. Hubs and nodes available. Anyone welcome!

Alpha Zone BBS, over 10,000 files, online CD-ROMs, 56,000bps and free email. ☎ 01788 551719 after 10pm.

Arachnoids BBS. Leicestershire Online 24hrs. ☎ 01509 551006 Friendly Sysop over 10,000 files online. No ratios everything free. Ninja@Arachnoids.freeserve.co.uk

Quest BBS, Wakefield. West Yorkshire's largest BBS with over 30,000 files online, including the latest 7 Aminet CD-ROMs. Online weekdays, 6pm-6am and weekends, 2pm-6am. ☎ 01924 250388.

Tribal Mirage BBS, Online 24 hours, Running Xenolink v2.8, Amiga Sysop with over 15 years of Amiga experience. 20,000+ files online. File requester. Amiga support given. Hertfordshire. ☎ 01992 410215, email sysop@tmbbs.freeserve.co.uk

Total Eclipse BBS, ☎ +44 (0) 1983 522428, 24 hours. 33.6K, home of Liquid Software Design and MAX's Pro support.

The Forum! BBS online 24 hours, Kilmarnock, Scotland. Over 35 members, 2,000+ files available, including games, pictures, utilities, etc. Sysop: Jamie Maguire. Run by a software development student. ☎ 01563 540863. 36K.

Elevate BBS, Hants, online 24 hours. ☎ 01329 319028.

Bedlam BBS, Leicester, online 24 hours. ☎ 01162 787773.

Entertainment BBS, Wigan, online 24 hours. ☎ 01942 221375.

Frost Free BBS, ☎ 01484 327196 (Slaithewaite, W. Yorks).

Bill's BBS, Cumbria, online 24 hours (mail only between 2.30am and 3.30am), ☎ 01229 434393 or 0870 7878615. Sysop: Bill Clark. Visit http://cumbria.cjb.net, email billsbbs@cornerpub.com or bill.clark@ukonline.co.uk. Supports Fidonet. Loads of free files, games, doors, etc. Unlimited downloads.

Zodiac BBS, Hants. Online 11am-7pm 7 days a week. ☎ 01243 373596. Sysop: Destiny Co. Sysop: Axl. Running Maxs Pro v2.11, Hellnet. Lots of files.

On The Oche BBS, Waterlooville, online 24 hours. ☎ 01705 648791.

Moonlight BBS, Bedford, online 6pm-8am, 24 hours at weekends, ☎ 01234 212752. Sysop: John Marchant. Email gnome@enterprise.net Official Transamiga Support BBS, unlimited downloads, friendly sysop with excellent knowledge. Aminet online. Run by an experienced Amiga programmer who will help you out for free.

Continued overleaf ➡

X Zone BBS, supporting the Amiga for over two years. Do you want the latest files? ☎ 01635 820590, 6pm-1am, modem callers only (33.6K).

USER GROUPS

User group ads will be printed for three issues.

Are there any Amiga users in Birmingham who want to set up a user group? ☎ Hitesh 0121 6056452

Need a new IRC chat channel? Come to #PoweredByAmiga on ARCNET for fun and informative chat about Amigas and otherwise. Visit our URl at http://www2.prestel.co.uk/amigav/PBA/ We mostly meet at weekends about midday.

UAUG est. 1986 (non-profit making), 40 page magazine. Free cover disk, 20,000 free PD titles, digitizing, scanning, helplines, support for all Amiga users. Free gift upon joining. Send SAE for details to: The Editor, 13 Rodney Close, Rugby CV22 7HJ.

NPAUG is a new Amiga user group based on the net. We offer a free monthly magazine and tech support over the web. If you're interested in joining, visit our website: http://members.aol.com:/npaug/home.html or email me: npaug@aol.com

Are you Welsh, live in Wales or love Wales? Then join Cymru Amiga User Group. Visit us on http://bounce.to/caug or email dark.lords@deathsdoor.com to join.

South West Amiga Group, (SWAG) meets every 1st Thursday of the month, 8:30pm at the Lamb & Flag (Harvesters), Cribbs Causeway, Bristol. SWAG intends to get Amiga users together, provide info and support, promote the Amiga and have a laugh. Contact Andy Mills: Swag@wharne.u-net.com

Amiga Support Association. We offer help and advice to Classic Amiga enthusiasts. Monthly meets to be arranged for a Southampton Venue. Please contact Phil for more information: Snood@UKOnline.co.uk or ☎ 01703 489701.

Pennine Amiga Club. Free worldwide helpline supporting all models. Non-profit making club. Not a business. We help with free advice: ☎ 01535 211230

Workbench, the Manchester Amiga user group. We meet on the first Thursday of each month at 7.00pm and offer general Amiga chat. ☎ 0161 839 8970. Also, check out our website at: www.workbench.freeserve.co.uk Alternatively, email: mail@workbench.freeserve.co.uk.

West Lancs User Group. Sundays, 1pm-4pm at St. Thomas School Hall, Highgate Rd, Upholland. ☎ 01695 623865, email ralph@twiss.u-net.com. Help and advice, novices and experts welcome.

Is there anybody in the Northamptonshire area interested in starting up a new user group? Please contact me: ☎ 01536 724309 or email nsthomas@ukonline.co.uk

Felbrigg Amiga Group meets weekly near Cromer. We are a group for novice and expert users. For more information ☎ 01263 511705 or 824382

Want the latest reviews, news, interviews, articles? then visit the NEW AIO website at http://www.aio.co.uk, or visit #amos on ircnet, Saturday 9pm-midnight.

Northern Ireland user group welcomes new members. Emerald Amiga Users meets regularly in Strabane. Please contact Charles Barr. ☎ 01504 884700

Medway and Maidstone Amiga collective. Meets monthly. Advice at all levels. Experts and beginners wanted. ☎ Dave 0961 809466. Support your local user groups!

Join a new email club for Klondike, a Reko Productions game. Cardset creators and cardset collectors, Amiga and PC. Email kevin@reko.karoo.co.uk (make friends).

NAC Nottingham Amiga Club New club starting soon. New/old users welcome! From A500 to A4000. Hints and tips on all software, games and hardware. ☎ Mark 0115 9566485 weekends only!

New Amiga sound and demo association seeks input, contacts and support to form a user group based around the Amiga music and demo scene. Interested? ☎ Dave 01243 864596 or 0961 985925.

Interested in Internet Relay Chat? Why not visit #Amigazone on Dalnet? We are a friendly bunch and meet at 10pm every day. Visit our website at: http://www.tsd-ltd.demon.co.uk

The Amiga Free Helpline still needs helpers, so if you have a lot of knowledge about the Amiga, or just a little bit, but are willing to help please call. ☎ Terry on 01709 814296.

Lost soul seeking Amiga users in and around Southend and the south east Essex area. Just left school. ☎ Elliott Bird 01702 582621 or write: 1 Thorpe Hall Close, Thorpe Bay, Essex SS1 3SQ.

Power Amiga User Group based in Portsmouth for users of all ages and levels. We meet once a month on the last Saturday. We generally have Amigas of all sorts to look, listen and learn from. We have prize draws, tutorials and general discussions each meeting. ☎ Richard 01705 829541 or email richard@poweramiga.freeserve.co.uk or visit www.poweramiga.freeserve.co.uk

ADVERTISE IN AMIGA FORMAT... FOR FREE

The editor reserves the right to refuse or amend ads.
We accept no responsibility for typographical errors or losses arising from the use of this service. Trade ads, including PD advertising, will not be accepted.

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Return to: Reader Ads • Amiga Format • 30 Monmouth Street • Bath • BA1 2BW. You can email amformat@futurenet.co.uk, putting 'Reader Ads' in the subject line.

Unfortunately we cannot guarantee insertion in a particular issue.
I have read and understood the conditions for the inclusion of my ad

Use one space for each word. Only the words in this section will be printed.

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Amilon/Lonix

Chris Livermore drinks cocktails and discovers how AmiLon and Lonix are mixing.

London is a funny old place. Despite being one of the largest cities in Europe it seems to be home to surprisingly few Amiga owners. However, a shortage of Amiga owners doesn't mean a shortage of user groups, and London has at least five different Amiga user groups scattered throughout its vastness. Add into the equation a bizarre adversity most Londoners seem to have to travelling more than five minutes from where they live, and you can understand why many of the London user groups have a real problem getting people to attend their meetings. AmiLon is no exception.

The last AmiLon meeting was a joint one with Lonix. I was rather apprehensive, having visions of being stuck with a bunch of Linux geeks

Actually with AmiLon the real truth is even worse. It's a classic example of how not to manage a user group. There's no fixed meeting place – normal procedure is to meet up a Piccadilly Circus and then try to find a pub or bar in one of London's busiest tourist areas and there are no fixed meeting dates, although in all fairness the time and day are usually kept the same. Added to this is the issue of leadership which changed hands about a year ago when Tushar Joshi decided to convert to Linux.

Currently AmiLon is in the capable hands of Ash Thomas, who plays an active role in the Amiga community but, unfortunately, has an unnerving habit of singing the praises of Microsoft software at the most inopportune moments!

The last AmiLon meeting was actually a joint meeting with Lonix, the LONdon lInuX users group, run by the aforementioned Tushar. The previous Lonix meeting had apparently been a great success, but I have to admit I was rather apprehensive before the meeting, having visions of being the only Amiga user stuck with a bunch of Linux geeks.



Current AmiLon organiser Ash Thomas and Paul Nolan both try and hide from the camera behind Paul's Wife Ela!



Some of the Linux guys gather excitedly round a lap-top, meanwhile elsewhere the Amiga crowd gather excitedly round their drinks!



The Amiga contingent can be seen huddling in the far left corner whilst the Linux mob take over the rest of the tiny bar.

As it turned out things couldn't have been further from the truth. AmiLon had one of the best turn outs in its history with about 10 people turning up, including Paul Nolan and his lovely wife Ela. On the Lonix side about 20 people turned out, ranging from the typical "hacker" type, to city workers desperate to jump on the Linux bandwagon.

As is tradition with these kind of meetings, Tushar ushered us all in the direction of the smallest bar he could find and everyone ordered pitchers of outrageously named (and outrageously priced, despite being happy hour) cocktails. Somehow everyone managed to find a seat – a miracle given the size of the bar, and we settled down into our respective groups of Amiga and Linux.

Talk in the Amiga camp varied and covered pretty much everything from the recent World of Amiga show, to rumoured new processors for the Amiga, to Paul Nolan's life in America. Although I didn't pay too much attention to the Linux contingent sitting opposite us I did notice that their topic of conversation tended to drift to the obligatory Microsoft bashing. One of the guys at Lonix had brought his Linux lap-top with him and was proudly showing off the latest version of vm-ware, which, I believe, allows Linux users to run Windows on top of Linux. I was too involved in the Amiga conversation to go over and investigate further, but it seemed to be drawing a lot of attention from the Linux crowd, or maybe he just had *Doom* installed.



After a couple of horrendous-tasting cocktails the majority of the Amiga crowd decided they'd had enough of being stuck in a hot, sweaty and crowded bar. Half of us headed off to an air-conditioned pub across the road, whilst the other half went in search of food, arranging to meet later in the evening.

TWIST IN MY SOBRIETY

I opted for the pub as I had a nice home-cooked meal waiting for me a bit later. As before, the conversation covered pretty much everything Amiga. Most of the people converged seemed pretty positive about the future after hearing Jim Collas speak at World of Amiga, and I suppose, given recent announcements by Amiga, the combined AmiLon/Lonix meeting is just the start of user groups becoming more involved with Linux, and vice versa.

Overall I was pleasantly surprised by the meeting. OK, it was still the same old crowded noisy bar routine, and nothing very constructive happened, but then in that kind of atmosphere you wouldn't expect it to. The turn out was far better than previous AmiLon meets, and everyone had a good time. Sometimes I wish that we met in a venue where we could actually get our hands on an Amiga and have Paul Nolan demonstrate the latest version of *Photogenics* or just have a bash at some multiplayer games, however, that said, there's something satisfying about having a drink with a few like-minded Amiga friends.

Lost Souls Form

No user group near you? Then fill in this form and send it to: User Groups • c/o Amiga Format • 30 Monmouth Street • Bath • BA1 2BW.

Name ....

Telephone ....

Email ....

Address ....

....

Postcode* ....

*You must fill in your postcode as this is used to calculate how far from other Lost Souls you are.



Chris Wiles
MD Active Technologies

Just the FAQs

We put Chris Wiles under our spotlight and demand that he answer the following questions

When did you first use an Amiga?

To be honest, I can't really remember. My first Amiga memories are from around 1986/87 when, as a teenager, I use to spend the occasional Saturday afternoon in a shop called 'CHIPS' in our local town. There was this computer playing famous pop tunes of the time as if someone had put on a CD (well, tape in those days), nearly everyone was astonished. This machine was an A500 and was rather expensive.

I must have bought an A500 in the late 80's, moved onto an A1200 in the early 90's and finally purchased a cheap A4K, second hand, in 1996.

When did you decide to get involved in the Amiga market on a business level?

Again, it must have been around the late 80's. I started selling PD locally (quite successfully) and started the 'Northern Amiga Users Group' which also ran a successful PD library, nationally. Whilst at university, I came up with, well, let's say, "a few ideas", started Active Software and released the ZOOM CD in association with Jeremy Ford (now CD editor of .net magazine). This was, even to this day, our most popular CD-ROM.

After this we went on to produce Scene Storm, the F1 Licenseware CD and ZOOM2 (that, although better than ZOOM, didn't sell as well as the first incarnation).

How did you get the idea for NetConnect?

A few years ago, at university (around 1995). It was originally going to be called 'Get Connected', and even advertised as this originally. The first idea was a suite of shareware (really), net software brought together in an easy to use package, all GUI controlled. Our part was simply going to be a GUI on *AmiTCP 4*. Anyone could do that now, but remember this was back in 1995, before *Miami, IBrowse, Voyager, AmFTP* etc.

Unfortunately we then decided to release those PD CD titles (ZOOM etc) and then became a little tied up with a project for Amiga Technologies in 1995/96 which was then cancelled when Escom/AT went under.

In 1996 I decided to start 'Get Connected'. *NetConnect* was first launched in March 1997.

What are you working on now?

STFax 4 (99% completed – I'm finishing the documentation and waiting for the German localisation from Haage & Partner) and *NetConnect 3*. I also project manage some of the Vapor titles, in association with our programmers (although people aren't aware of this). We should release *mFTP II, MetalWeb 4* and *Octopus* during the next few weeks, via VaporWare (http://www.vapor.com).

What's the one Amiga peripheral (software or hardware) that you wouldn't be without?

I'm tempted to say my notebook running UAE, but that will be cut out. I use this for doc writing in multiple locations and it is an invaluable tool. The beauty of the notebook is that you can connect a mobile phone on the PC side, go on the net from any location worldwide, then access the net on the Amiga side – so you have portable Amiga net access!

As for a 'proper' Amiga peripheral. Well, this would have to be *Directory Opus*. Move me to an Amiga without *DOpus* and I'm lost. I also have *DOpus* running on my notebook/UAE, this works very nicely, too.

Who is your Amiga hero and why?

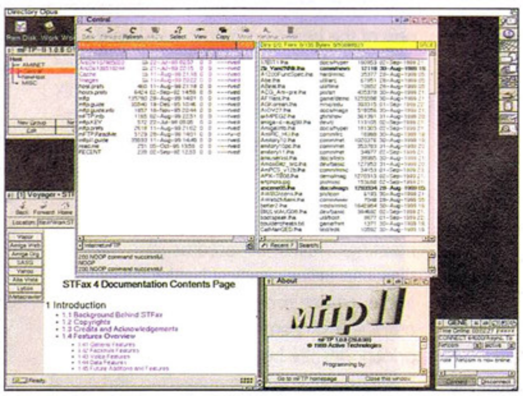
Well, I'm not sure about 'hero'. The only Amiga person I have any respect for is Oliver Wagner. Why? Main reason being that he's probably the most productive developer in the Amiga community, yet one of the most undervalued. Simply put: without the work of Olli, a huge amount of Amiga software (including software not written by Olli) would not exist today.

What's the one piece of software or hardware you wish you'd had the idea for?

I'll answer this indirectly. I would say the two pieces of software that I wish we had written/developed are a *Command and Conquer* clone and a decent word processor. Answering your question directly, hmm, possibly *Wordworth*? Certainly I would like to take on *Wordworth* and continue the development, but that's unlikely to happen.

Any thoughts about the current market situation?

I just urge current Amiga users to 1) support the current Amiga developers and to 2) think before pirating software. It's still a huge epidemic. There are about three to five times more people pirating *NetConnect* than there are purchasing it. I had a guy on the phone, quite innocently (well, so he sounded) asking "do you sell a *DOpus Magellan* manual?". I asked "why?" and he went on to tell me he'd just downloaded four disks containing *DOpus Magellan* (cracked full version) and wanted the manual so he could use it!



mFTP is a new FTP coming soon from Vapor.

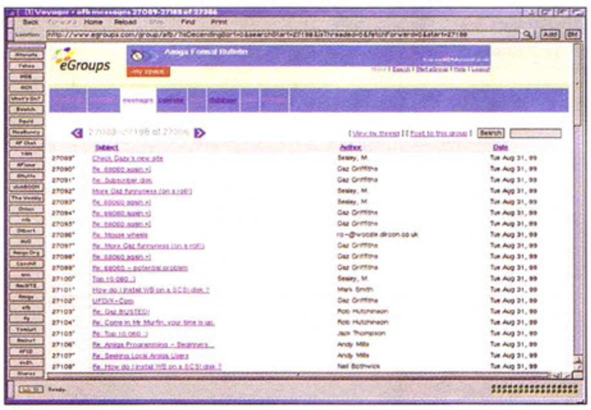
afb amiga format bulletin

Amiga Format**'s mailing list is getting more active all the time. Over 750 people are now on it. Why aren't you?**

The mailing list set up by *Amiga Format* in January enters its tenth month as you read this and it has taken off more than we could have envisaged.

While most of the people on the list don't post to it, preferring to lurk, it has proven a repository of excellent Amiga info and a great source of entertainment, along with the very latest news. Be warned though, it's a busy list, with more than 150 messages a day.

Topics just today have included piracy on the Amiga, the end of a thread on Pinky and the Brain (finally, not to say it wasn't funny mind), a question about converting MODs to samples (ably answered by Tony



Horgan) and advice about a Blizzard 1260 board that flashed the screen at boot time. Incidental to that we had a short thread about the benefits of OxyPatcher for any 68040 or 68060 owner and a discussion of the mythical IWin boxes. In addition to this I started a thread looking for mercenaries to take out the entire Japanese parliament (the diet) in order to drop the strength of their economy in time for our holiday there.

Tomorrow is likely to be just as varied and interesting, with as many new topics to discuss. Members of afb welcome net newbies with open arms, and the only stupid question is one that goes unasked so don't be afraid.

> Tomorrow will bring many new topics to discuss. Members of afb welcome net newbies so don't be afraid to ask anything

There are so many different subjects to write about that you should be prepared to receive more than 150 messages a day.

FREEDOM

But the mailing list isn't the end of matters. Opinion polls can be set by anyone, on any topic you like, and the database function that eGroups – the host of afb – offers enables you to look up that old game in back issues of *AF* easily. If you want to send something for our CD then you can find out when the deadlines are for a certain disk, and when the next issue will be out thanks to the calendar.

Sign up today, but watch out for *Voyager 2.95* which has trouble with cookies. Use the version of *iBrowse* on our CD – that definitely works, and so does *iBrowse 2* and *Voyager*[3].

If you have trouble at all, both Richard and Ben are on the list to help, and if you have problems, mail to afb-owner@egroups.com will reach Ben. So don't hesitate, join citizen, and become a member of the afb elite! AF

RULES AND REGS:

Based on the fact that people complain about a lack of regulation on the list, we've decided to introduce some hard and fast rules. Expect these to change as time goes by, although some will stay fixed:

- **All polls must have dates. For an example of this, look at existing polls before starting one of your own. Also, unless absolutely necessary, choose a closed or anonymous poll – the named one takes up far too much space.**
- **Make sure you quote sensibly, don't include the greeting or signature from the previous mail, etc.**
- **Pay attention to and keep all mails with MANAGE at the start of the subject line.**
- **Keep the subject live. Make sure that it applies to the mail you are sending, or change it to something more appropriate.**
- **There are no content restrictions on afb, although swearing is frowned upon, but please don't include attachments unless previously agreed.**
- **Any URLs posted should have the "http://" part to enable people to simply double click on them to launch their browsers.**

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You can subscribe to the afb by going to the following website and signing up:
http://www.egroups.com/group/afb/

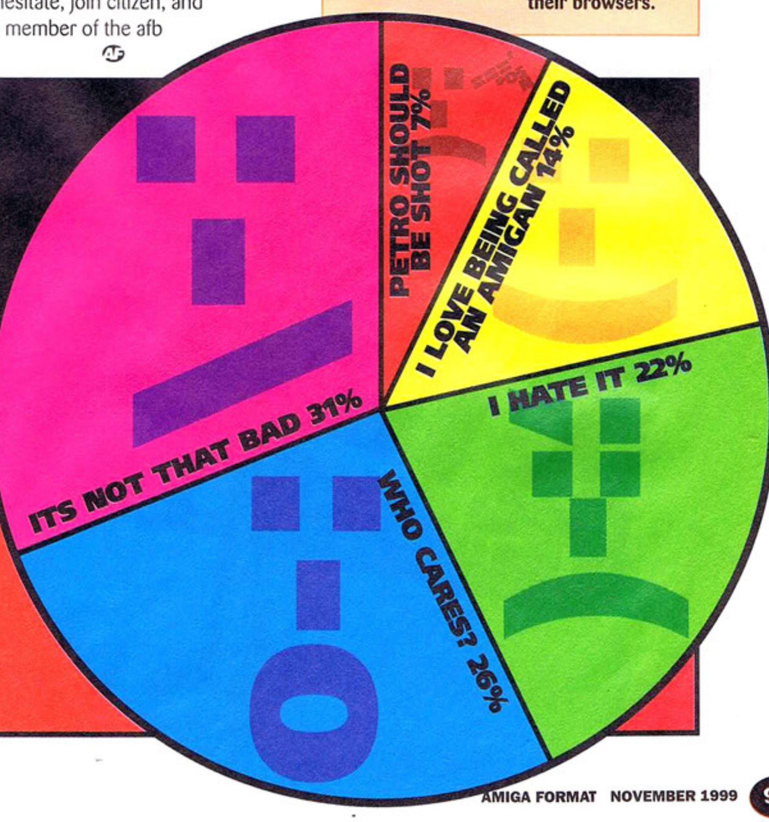
If you just want news on when the next issue of *Amiga Format* will be out, we offer that at:
http://www.egroups.com/group/afb-announce/

It's worth joining both lists since they each offer unique things and the announce list usually only has one email every four weeks.

VOX POP

afb members were asked: "Amigan" good or bad? and came up with the results:

CATEGORIES:
- **Petro should be shot**
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- **I hate it**
- **Who cares?**
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AF 129 – NOV 1999

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If you want to speak to us about a technical problem, we have a reader call day on Tuesdays. Call us on (01225) 442244 (10am–1pm, 2pm–5pm only please).

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90+%	These products are absolutely top notch. They are hard to find any fault with and that's the reason they get an ***AF Gold*** award.
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December issue on sale Wednesday 20th October

The contents of future issues may be subject to change – no guarantee is implied or intended.

new product

new amiga OS3.5 upgrade

Power Computing is the Official Distributor of the new OS3.5. We are able to offer a special discount for 3.1 ROM chips when purchased with OS3.5. Below are some of the features of Amiga OS3.5. Available in August. WARNING - You must have OS 3.1 ROMs and software to be able to upgrade to OS 3.5



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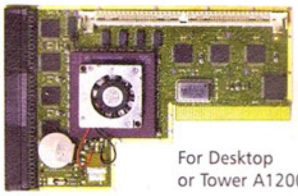
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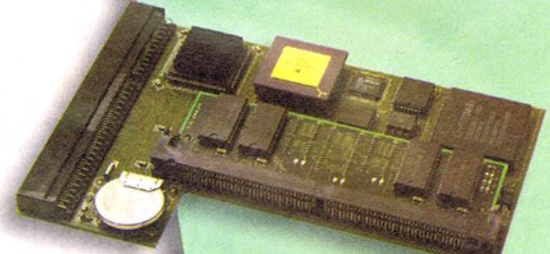


new products

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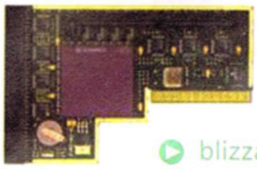


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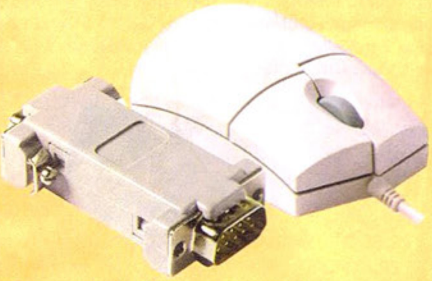
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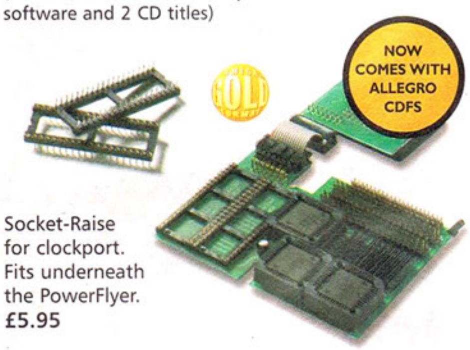
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new a4000 powerflyer gold edition

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- Autoboot from any removable media (ZIP, LS120)
- FastATA'99 - Highly sophisticated supporting software
- Includes Allegro CDFS - the fastest Amiga CD file system, supports video DVD format

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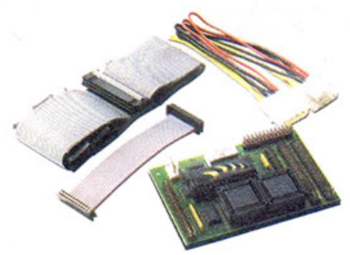
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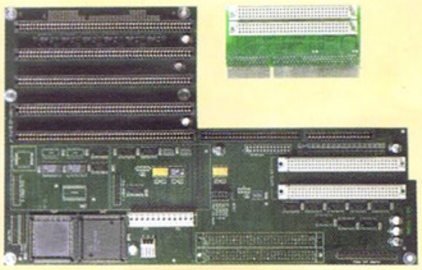
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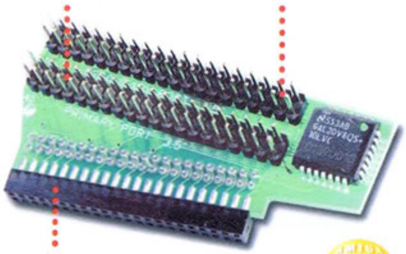


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